

EXHIBIT 88

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF VERMONT

3 - - - - - x

4 JAMES D. SULLIVAN, et al., individually and on
5 behalf of a class of persons similarly situated

6 Plaintiffs

7 vs.

CA No. 5:16-cv-00125

8 SAINT-GOBAIN PERFORMANCE

9 PLASTICS CORPORATION

10 Defendant

11 - - - - - x

12
13 VIDEOTAPED DEPOSITION of ROBERT E. UNSWORTH

14 Thursday, September 27, 2018 - 9:37 a.m.

15 Sugarman & Sugarman

16 800 Boylston Street

17 Boston, Massachusetts

18
19
20 Reporter: Jill K. Ruggieri, RPR, RMR, FCRR, CRR
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24

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22 Also present: Trevor Phillips

23

24 Videographer: Gayle Ashton

I N D E X

WITNESS:

ROBERT EDWARD UNSWORTH

Examination by Mr. Wilson 8

E X H I B I T S

Exhibit 1	Expert Statement of Robert E. Unsworth	5
Exhibit 2	Expert Statement: Monetary Damages, Robert E. Unsworth	5
Exhibit 3	Expert Statement: Rebuttal of Expert Report Provided by Dr. Charles Mullin	5
Exhibit 4	Expert Statement: Rebuttal of Expert Reports Provided by Dr. Thomas O. Jackson and Trevor E. Phillips	5
Exhibit 5	Deposition transcript of Robert Unsworth, 3/29/18	11
Exhibit 6	Expert Report of Charles	45

1
2
3
4
5
6
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	Mullin, Ph.D.	
Exhibit 7	Article, March 2009 -	152
	Identifying, Scaling, and	
	Evaluating Groundwater	
	Restoration Projects as	
	Compensation for Groundwater	
	Injuries	
Exhibit 8	Document	248

P R O C E E D I N G S

(Exhibits 1-4 marked for
identification.)

THE VIDEOGRAPHER: Good
morning. We are going on the record at
9:37 a.m. on September 27, 2018.

Please note, the microphones are
sensitive and may pick up whispering or private
conversations. Please turn off all cellphones
or place them away from the microphones, as they
can interfere with the audio.

Audio and video recording will
continue to take place unless all parties agree
to go off the record.

This is Media Unit 1 of the
video-recorded deposition of Robert E. Unsworth,
taken by counsel for the defendant, in the
matter of James D. Sullivan, et al., versus
Saint-Gobain Performance Plastics Corporation,
filed in the United States District Court for
the District of Vermont, Civil Action
No. 5:16-CV-00125-GWC.

1 This deposition is being held at
2 Sugarman & Sugarman, 800 Boylston Street,
3 Boston, Massachusetts. My name is Gayle Ashton,
4 from Veritext, and I am the videographer. The
5 court reporter is Jill Ruggieri, from Veritext.

6 I am not authorized to
7 administer an oath. I am not related to any
8 party in this action, nor am I financially
9 interested in the outcome.

10 Now counsel and all present in
11 the room will state their appearances and
12 affiliations for the record.

13 MR. WILSON: Lincoln Wilson
14 with Dechert LLP for Saint-Gobain Performance
15 Plastics Corp.

16 MR. GLEDHILL: Rory Gledhill
17 from Dechert LLP for Saint-Gobain.

18 MR. PHILLIPS: Trevor Phillips
19 with Alvarez & Marsal.

20 MS. JOSELSON: Emily
21 Joselson, Langrock Sperry & Wool, for the
22 plaintiffs.

23 THE VIDEOGRAPHER: Will the
24 court reporter please swear in the witness.

1 ROBERT EDWARD UNSWORTH, a
2 witness having been duly sworn, on oath
3 deposes and says as follows:
4

5 MS. JOSELSON: So I just
6 wanted to place on the record, as I said
7 before we started the depo, I'm sure that
8 this will not be a problem, but I wanted to
9 make sure all parties were mindful of the
10 terms of the August 17, 2018 Third Amended
11 Discovery Order, which indicates that the
12 depositions of plaintiffs' rebuttal witnesses
13 will be limited to the opinions in their
14 August 1, 2018 reports.

15 The parties shall not use the
16 rebuttal depositions to reexamine the same
17 witnesses on matters already examined in
18 their initial depositions, except that the
19 depositions may inquire into opinions
20 previously offered only to the extent
21 reasonably necessary to explore opinions
22 stated in the August 1, 2018 reports.

23 MR. WILSON: Thank you, Emily.
24

EXAMINATION

BY MR. WILSON:

Q Good morning, Mr. Unsworth.

A Good morning.

Q Just for the record, would you please state your full name.

A Robert Edward Unsworth.

Q Now, this is neither your first rodeo, nor mine, and nor even our first rodeo together, so I know you're very familiar with the rules of the deposition. But just for the record, I'm going to go over them.

A Okay.

Q You're under oath today, and it's important that you give verbal answers to all the questions that I ask so that the court reporter has a clear record.

And you may often find that you know where I'm going with a particular question and you can anticipate it, but I ask for the court reporter's sake that you wait until I finish with the question before you provide a response.

Is that clear to you?

1 A Yes.

2 (Pause.)

3 Q And I've also -- the court reporter
4 has handed you what's been premarked for
5 identification as Exhibits 1, 2, 3 and 4.

6 Can you tell me what these
7 are?

8 (Deponent read the documents.)

9 A So they appear to be accurate
10 printouts of my four expert statements in
11 this matter, including the two rebuttal
12 opinions. I'll take it from you these are
13 accurate printouts of what I provided.

14 Q I'm willing to represent that they
15 were printed off at the Westin Business
16 Center this morning.

17 A Okay.

18 Q And so just to be clear, Exhibit 1
19 is what I'd like to call, for convenience,
20 your "class certification" report; is that
21 correct?

22 A That's fine, if you want to call it
23 that, sure.

24 Q And your Exhibit 2 is what we

1 referred to before as your "merits" report?

2 A Yes, it has some of the -- much of
3 the same material in it, but yes.

4 Q And Exhibit 3 is your rebuttal to
5 the opinion of Dr. Charles Mullin?

6 A Yes.

7 Q I'm going to refer to that either
8 as the "Mullin rebuttal" or as the
9 "groundwater rebuttal," or maybe the
10 "groundwater report," in the course of the
11 deposition.

12 So just so you know, if I
13 refer to that report, that's what we're
14 looking at.

15 A Okay. "Mullin rebuttal" is
16 probably clearer, but yes.

17 Q Yes.

18 And the last report is your
19 rebuttal to the opinion of Dr. Thomas Jackson
20 and Trevor Phillips, and this is what I'm
21 going to be referring to as the "property
22 rebuttal" or the "property report."

23 A That's fine.

24 Q Okay.

1 So are all of the reports that
2 you've offered in this matter true and
3 complete, to the best of your knowledge?

4 A Yes.

5 Q Is there anything that you need to
6 change about these reports before we start
7 today?

8 A No.

9 Q So as an icebreaker today, for the
10 benefit of Mr. Phillips, since he wasn't here
11 last time, I wanted to read a line from your
12 deposition transcript, and if you'd like
13 to --

14 MR. WILSON: Let's actually
15 get that out.

16 This will be Exhibit 5.
17 (Exhibit 5 marked for
18 identification.)

19 THE DEPONENT: They must love
20 you at the Westin Business Center.

21 BY MR. WILSON:

22 Q We did that one in-house.

23 A Okay.

24 Q So what's been handed you for

1 identification as Exhibit 5 --

2 MR. WILSON: Emily, here is a
3 copy for you.

4 MS. JOSELSON: Oh, good.

5 BY MR. WILSON:

6 Q Can you tell me what this is,
7 Mr. Unsworth?

8 A It appears to be my deposition from
9 March of this year; and I'll accept, if you
10 say that's so, that that's the case.

11 Q So if you would turn to page 93 of
12 the deposition transcript.

13 I'd like to read you an
14 excerpt beginning on line 17:

15 "Question: And if a local
16 real estate appraiser in Bennington said no,
17 the cost of municipal water, that's not going
18 to discount the value by that much, would you
19 tell that real estate appraiser that your
20 model was a better description of the effect
21 on value than his?

22 "Ms. Joselson: Objection.

23 "Answer: I would say two
24 things: One is yes, economists do a better

1 job valuing homes than appraisers do; and
2 two, not that much. It says in my report
3 that it's around seven percent. So that
4 statement actually may be correct."

5 Did I read that correctly,
6 Mr. Unsworth?

7 A You did.

8 Q Why is it that you think economists
9 do a better job valuing homes than appraisers
10 do?

11 A I would say that economists tend to
12 use larger data sets which have greater
13 statistical validity than appraisers do.

14 I would say that economists
15 tend to rely on more objective measured
16 criteria rather than subjective criteria.

17 And so if I were, for example,
18 trying to measure how an attribute in a home
19 contributes to its price, I, as an economist,
20 would prefer my methods to those that are
21 sometimes used by appraisers.

22 Although I will say that a lot
23 of the methods we use are the same methods
24 appraisers use.

1 Q In this case, you've attempted to
2 quantify the actual economic costs that you
3 believe that the plaintiffs have incurred
4 from the switch to municipal water, and you
5 have, as an economist, capitalized that into
6 the value of their homes; is that correct?

7 MS. JOSELSON: Object to the
8 form.

9 A So I guess I would call it a
10 financial cost, and it's a cost that they
11 will be incurring, and I think most of that
12 hasn't occurred yet, so...

13 Q But you -- you testified that
14 it's -- that will be capitalized into the
15 value of their homes; is that correct?

16 A My expectation would be that, as a
17 cost item on the home, a change in the cost
18 item on the home, that that would be
19 capitalized into the value of the home.

20 And that's actually consistent
21 with appraisal methodology as well.

22 Q And, as you mentioned -- so would
23 you say that your opinion on the
24 capitalization of those costs represents a

1 better and more accurate objective picture of
2 the diminution in property value than the
3 opinion of an appraiser would in these
4 circumstances?

5 A So are we limiting this to just the
6 effect of the increased cost of operating --
7 of -- the comparative cost of being on a
8 municipal system versus being on a well?

9 Is that the piece you're
10 referring to here? Because that's what we
11 were discussing in this part of the
12 deposition, was how the increased cost of
13 owning a home would be capitalized in its
14 value.

15 Q I'm wondering if -- so the scope of
16 your initial opinion in this case was
17 directed at calculating groundwater damages;
18 is that correct?

19 A The -- the scope of my opinion was
20 to look at added costs and replacement costs
21 for the fact that the groundwater is
22 contaminated in Bennington.

23 I believe this section of my
24 deposition is asking the question, would a

1 rational buyer of a home incorporate a change
2 in the cost of owning that home into their
3 price, so would it be capitalized in the
4 price.

5 And I testified that I think
6 it would, as well as other cost items, as
7 well as other attributes of the home; and
8 that I felt that economic methods would do a
9 better job of measuring that than a simple
10 appraisal, as long as the appraiser is also
11 not applying a hedonic analysis or other
12 techniques that economists apply.

13 Q So when you said in this deposition
14 excerpt that "it says in my report that its
15 around seven percent," were you saying that
16 you believe that the average diminution in
17 value per class member is seven percent?

18 A No.

19 What I said was, I felt that
20 it appears that the average increase in cost
21 is about seven percent of the home value in
22 Bennington.

23 So I was saying that I would
24 expect to see something on the order of that

1 regarding the increased cost of municipal
2 water, all else equal.

3 Q Let's turn to Exhibit 3, which is
4 your groundwater/Mullin rebuttal, and take a
5 look at page 15.

6 So at the beginning of the
7 first full paragraph, it says, "From my
8 analysis, I am interested in accounting for
9 actual costs incurred."

10 Did I read that correctly?

11 A That's correct.

12 Q And this section of your report is
13 talking about testing of wells; is that
14 correct?

15 A Talking about whether residents
16 would test their wells for certain
17 constituents or characteristics.

18 Q And so as you were evaluating which
19 tests to include in your valuation, you
20 wanted to include the tests that residents
21 actually perform?

22 A That's correct.

23 Q Now, if you take a step back to
24 page 13 of this report, the second bullet of

1 that page says, "Dr. Mullin assumes an annual
2 bacteria testing expense (\$14) for all
3 Bennington and North Bennington residents
4 relying on well water. Since not all
5 residents actually do this test, I assume
6 that this test is only purchased by a portion
7 of private well owners each year."

8 Did I read that correctly?

9 A You did.

10 Q And when you say that "not all
11 residents actually do this test," that
12 implies that some do; is that correct?

13 A That's correct. I have assumed
14 that some do, yes.

15 Q And since you purport to look at
16 the actual costs incurred by the class
17 members, we need to know which and how many
18 of the residents do that test, don't we?

19 A We need to know how many do it. We
20 need to have an opinion on how many residents
21 do that, as I calculate my damages to the
22 class.

23 Q And if we were ultimately going to
24 determine which damages should be awarded to

1 which class members, you would need to know
2 which ones do as well; is that correct?

3 A You might include that in the
4 formula as you're allocating the damages,
5 yes.

6 Q Would it be fair to an individual
7 who did not have this test done to receive
8 compensation as though they had had this test
9 done?

10 MS. JOSELSON: Object.

11 A So this is a cost associated with
12 owning a well; and so if a person did not
13 incur this cost, it would mean that municipal
14 water -- the cost of moving municipal water
15 is slightly smaller. In this case, you know,
16 very much slightly.

17 And so it -- it -- if you
18 weren't to include that in your allocation
19 scheme, then it -- then your allocation
20 scheme could be incorrect, depending on how
21 you set up the rest of the allocation scheme.

22 There's various ways you could
23 do the allocation that may render that moot.

24 Q So let's take a step back over to

1 page 15 of this report again and look at the
2 first full paragraph.

3 The third sentence says, "For
4 example, from January 2011 to January 2018,
5 the Vermont Department of Health recorded
6 about 12,000 samples tested for E.coli. Only
7 two percent of those samples that were
8 sourced from private wells found presence of
9 E.coli. Even if the presence of E.coli were
10 detected, the next step would be additional
11 testing and/or sampling to confirm the
12 presence."

13 Did I read that correctly?

14 A That's correct.

15 Q Now, the frequency with which
16 E.coli was detected in wells in this study,
17 that doesn't say anything about how
18 frequently the testing was performed, does
19 it?

20 A No, but the number of samples does,
21 relative to the number of wells in Vermont.

22 Q And you didn't analyze the
23 frequency of testing and how often it would
24 be performed in this class, did you?

1 A I wouldn't say that's true. I said
2 we looked at how often these tests -- how
3 many of these tests are requested. We looked
4 at how many private wells there are in the
5 state; and at least in the case of radon, I
6 believe, I think we had the numbers for the
7 county.

8 Q Does your report provide a number
9 how frequently E.coli testing was done in
10 this putative class?

11 A It does get entered into my -- my
12 estimate of damages, yes.

13 Q Doesn't it get entered by not
14 including that test?

15 A No.

16 If you turn to the calculation
17 of damages, I made assumptions about the
18 proportion of the population that would --
19 that would do this test, that would purchase
20 this test each year.

21 Q Can you point me to that in your
22 report?

23 A I would also say, this is getting
24 into the original deposition. This is --

1 this isn't new material.

2 Q Since your rebuttal report also
3 addresses testing, we believe that your
4 original opinions are relevant for purposes
5 of this.

6 MS. JOSELSON: I'm just going
7 to put again on the record, that the extent
8 the questions overlap questions that have
9 already been asked in the first deposition,
10 we will note our objection and may be seeking
11 relief from the court in terms of the costs
12 incurred in those repetitive questions.

13 A So if you turn to page 13 of my
14 December 15, 2017 report, which I think you
15 referred to as the "merits" report, there's
16 an exhibit, and in that exhibit, there's a
17 line item for annual bacteria test.

18 Q And so how did you calculate that
19 \$14 line item for the annual bacteria test?

20 MS. JOSELSON: Again, asked in
21 the original deposition. We believe this is
22 repetitive.

23 You can answer.

24 A That is the price that the State of

1 Vermont charges for that kit. They send
2 out -- they send -- if you're a resident of
3 Vermont, you can order a kit, and they send
4 you a tube and you put water in it and submit
5 it.

6 Q So your line item doesn't actually
7 address the frequency? It just assumes that
8 everyone who did use a water softener will
9 have this test performed; is that correct?

10 A This was asked and answered at
11 length in the last deposition. It's not a
12 new opinion.

13 Q I don't believe these questions
14 were --

15 A It's not a new opinion to this
16 deposition.

17 Q It's relevant to this deposition
18 because you're offering testimony in your new
19 report about these E.coli bacteria tests, and
20 it's important to understand your methodology
21 for evaluating the frequency with which those
22 tests are done.

23 It's integral to your opinions
24 in this case.

1 MS. JOSELSON: Again, I hope
2 we're not going to have a problem throughout
3 this deposition; but to the extent all of
4 this was set forth in and inquired into in
5 his merits and class deposition, revisiting
6 questions about methodology that have already
7 been testified to are beyond the scope of
8 this deposition.

9 MR. WILSON: Emily, they're
10 not beyond the scope in any respect. It's
11 necessary -- when the witness has served four
12 reports in this case, it's necessary for us
13 to understand how those reports interact with
14 one another, whether they're consistent with
15 one another, whether the methodologies that
16 Mr. Unsworth is espousing in these latter
17 reports fit with the ones in his original
18 reports, whether they've modified the
19 methodologies in those original reports.

20 Given the volume of the work that
21 Mr. Unsworth has done, I think we should be
22 allowed significant latitude in asking these
23 kind of questions, and I'm happy to take the
24 issue to Judge Crawford, because I don't think

1 he's going to appreciate your efforts to
2 obstruct our inquiry into the new opinions
3 Mr. Unsworth has offered in these rebuttal
4 reports.

5 MS. JOELSON: You are
6 certainly entitled to ask him questions about
7 methodology utilized in his rebuttal reports.

8 Asking him questions about
9 methodologies utilized in his method and
10 class reports is clearly inappropriate under
11 the amended discovery order and we believe is
12 pursued in bad faith.

13 MR. WILSON: That is patently
14 false, given the terms of the amended
15 discovery order, which allow inquiry into the
16 original opinions, provided they are
17 reasonably related to the opinions in the
18 rebuttal report.

19 MS. JOELSON: Only as
20 necessary. Only as necessary. You do not
21 have free reign to reask questions that were
22 asked in the first deposition.

23 MR. WILSON: I don't think
24 this question was asked in the first

1 deposition; but even if it were, it's
2 relevant to understanding how it interacts
3 with Mr. Unsworth's current opinions.

4 Now, unless you would like to be
5 here until the wee hours of the morning, I
6 suggest that we proceed with this deposition so
7 I can ask these questions and develop these --

8 MS. JOSELSON: And I would ask
9 that you comply with the terms of the amended
10 discovery order, and I'll take in good faith
11 your intention to do so.

12 BY MR. WILSON:

13 Q So your line item for bacteria
14 tests here assumes that everyone will take
15 the test, not that only some will; is that
16 correct, Mr. Unsworth?

17 A No, that's incorrect.

18 The table I pointed to in
19 Exhibit 2 has a portion of the population
20 assumed to use that test, and what I used was
21 an estimate of the portion of the population
22 and which portion of the population is most
23 likely to do that test.

24 Q So you assume that everyone who had

1 a water softener will take the bacteria test?

2 A Yes, I do, yes.

3 Q Is that supported by or consistent
4 with your statement here about the number of
5 samples tested for E.coli in the Vermont
6 study that you state in your rebuttal report?

7 A When you say "here," can you point
8 me to where "here" is?

9 Q Page 15 of your rebuttal report
10 offers data that concern the frequency with
11 which that E.coli test is performed.

12 A That's right.

13 So the State of Vermont had
14 given us an opinion on what portion of the
15 population they think would get this test.
16 In this report, I provide more detail on it.

17 It appears the proportion is
18 actually lower, so my cost estimate for
19 owning a well may be slightly high, but I
20 stand by the original estimate as a
21 reasonable estimate, so...

22 Q So, to be clear, your rebuttal
23 report is providing more detail about
24 opinions in your merits report; is that

1 correct?

2 MS. JOSELSON: Object.

3 A No. My rebuttal report is
4 contradicting the assumption that Dr. Mullin
5 makes in his report.

6 Q Did you just tell me that your
7 rebuttal report is providing more detail
8 about the opinions in your merits report a
9 few moments ago?

10 A It's providing more detail about
11 the proportion of the population that likely
12 tests for bacteriological contamination each
13 year.

14 Q So it would be proper for me to ask
15 you about your merits report, then, wouldn't
16 it?

17 A I'm not a lawyer, so I'll let you
18 figure that out.

19 Q Okay.

20 So if the State of Vermont
21 says that some people did the E.coli testing,
22 on what basis did you include that all people
23 with a water softener will do the E.coli
24 testing?

1 A I wanted to be conservative in
2 terms of my assumptions about who would do
3 it.

4 So based on the depth of well
5 you would expect with a water softener, and
6 based on the fact that you are spending time
7 with your water system when you own a
8 softener, I made the assumption that people
9 would get the test if they did that.

10 Q But you don't know who did --
11 within the putative class who did this
12 bacterial test, do you?

13 MS. JOELSON: Object. Asked
14 and answered in the first depo.

15 A Yeah, I think I know -- I think I
16 have a good estimate of the proportion that
17 would have done it, and I think I have an
18 assumption about which portion of the
19 population would have done the test.

20 Q But you don't know which specific
21 individuals did the test, do you?

22 A I did not survey specific
23 individuals.

24 Q Or who did additional tests because

1 the presence of E.coli was detected; is that
2 correct?

3 A Right. You would normally do the
4 same test. You would resubmit it to see
5 whether you contaminated the sample when you
6 were taking it or something like that, but it
7 would be the same test.

8 Q And you don't know who did those
9 additional tests, do you?

10 A No.

11 Q And you didn't try to find out?

12 A No.

13 Q On page 15 of your rebuttal report,
14 in the last paragraph of the page, third
15 sentence, referring to radon tests, it says,
16 "However, most residents do not do this
17 test."

18 Did I read that correctly?

19 A That's correct.

20 Q So some do incur this -- the cost
21 for this test; is that correct?

22 A It's possible some do.

23 I mean, typically, in this
24 part of the world, you might do that test

1 when you sell your home. Radon is a
2 persistent issue, so you wouldn't typically
3 expect it to arise over time, so you might do
4 it when you purchase a home.

5 You might -- the resident
6 might actually not pay for it. The
7 inspector -- it might be included in the
8 inspection, or the buyer may do the test,
9 but...

10 Q Do you know which residents did
11 this radon test?

12 A I did not survey residents who did
13 this test, no.

14 Q Turn to page 16 of your groundwater
15 rebuttal report.

16 A I want to point out, I do know that
17 a very small proportion of private wells in
18 Vermont are tested for radon each year,
19 extremely small proportion.

20 Q So if you turn to page 16 of your
21 report, in the second full paragraph, halfway
22 through the second sentence, it says, "We
23 would expect this leaves us with no more than
24 1.4 percent of well owners who tested their

1 wells for inorganics, gross alpha levels or
2 radon in 2017."

3 Did I read that correctly?

4 A You did.

5 Q So 1.4 percent of Vermont residents
6 did incur the actual cost of tests for
7 inorganics, gross alpha levels or radon; is
8 that correct?

9 A It appears that's the case, yes.

10 Q And you didn't try to find out
11 which residents in the putative class did
12 that test, did you?

13 MR. JOELSON: Objection.
14 Asked and answered.

15 A The purpose of this paragraph is to
16 contradict Dr. Mullin's belief that all
17 individuals performed this test, which is
18 clearly not true, based on this percentage.

19 Q Where in Dr. Mullin's report does
20 it say that he believes that all individuals
21 do this test?

22 A He applies it to the same 20
23 percent that I have who are getting the
24 E.coli test.

1 Q Doesn't that, in fact, reflect a
2 different methodology about which tests
3 should be used in evaluating -- I'm sorry,
4 about whether recommended tests as opposed to
5 actual tests should be used in the
6 methodology?

7 A No, it -- the State recommends a
8 certain testing frequency for certain
9 constituents or characteristics, but he
10 simply applies it to the same 20 percent that
11 I assumed did the E.coli test.

12 In his math, that's what he's
13 doing.

14 Q So as a purported expert in this
15 matter, your goal is to offer a scientific
16 opinion in this case; is that correct?

17 MS. JOSELSON: Object to the
18 form.

19 A Leaving aside "purported," yes.

20 Q And scientific opinions should be
21 rigorous; is that correct?

22 A I think opinions should be based on
23 reasonable information that can be
24 objectively reviewed by a trier of fact.

1 Q And they should be accurate?

2 A They should try to be accurate,
3 yes.

4 Q And if you are responding to
5 conflicting opinions or theories with regard
6 to the matters in your expert opinion, you
7 have to make sure that you characterize them
8 accurately; is that correct?

9 A I think you would try to
10 characterize things correctly, yes.

11 Q It wouldn't be scientific to use a
12 straw man mischaracterization of the other
13 side's argument, would it?

14 MS. JOSELSON: Object to the
15 form.

16 A I don't even know what that means.

17 Q To mischaracterize your opponent's
18 argument in order to defeat it, that wouldn't
19 be a proper thing for a scientist to do,
20 would it?

21 MS. JOSELSON: Object to the
22 form.

23 A I don't think I am
24 mischaracterizing his argument. I'm just

1 taking the calculations he performed and
2 critiquing them.

3 Q But as a general matter, you agree
4 that it's not appropriate to mischaracterize
5 an opponent's argument; is that correct?

6 A I would -- I would agree that
7 Dr. Mullin in several cases mischaracterizes
8 my arguments, so...

9 Q I didn't ask you that question.
10 I'm asking you whether it is
11 proper to mischaracterize an opponent's
12 argument for purposes of defeating it.

13 MS. JOELSON: Object to the
14 form.

15 A I would say it would be
16 inappropriate to mischaracterize an argument
17 for any purpose, so...

18 Q So I'd like you to take a look at
19 page 4 of your groundwater rebuttal.

20 A So this is the Mullin report?

21 Q Yes.

22 A Okay.

23 Q And if you look at the fourth
24 bullet down, the end of that bullet says, "In

1 short, Dr. Mullin finds contamination of
2 groundwater in Bennington has" -- in
3 italics~-- "benefited the community."

4 Did I read that correctly?

5 A You did.

6 Q That's a mischaracterization of
7 Dr. Mullin's opinion, isn't it?

8 A Absolutely not.

9 Q Where in his report does he say
10 that he believes groundwater contamination in
11 Bennington was a benefit to the community?

12 A Well, he -- he believes that the
13 cost of owning -- of being on municipal water
14 is cheaper than being on a well, and so he
15 believes those individuals have financially
16 benefited.

17 He believes that the community
18 water systems will benefit from the
19 additional customers they're going to have,
20 and so he -- he states that that's going to
21 be a benefit, and that -- that is the
22 totality of his analysis.

23 Q So I noticed in that answer, you
24 didn't mention contamination being a benefit.

1 Is that because Dr. Mullin
2 doesn't say that contamination is a benefit
3 to the community?

4 A I think Dr. Mullin actually
5 doesn't -- he doesn't straightly acknowledge
6 that the groundwater is contaminated. He
7 states that it's "purported," I believe, is
8 the terminology he used.

9 Q But I'm asking you, is there any
10 point that you can identify in Dr. Mullin's
11 report where he says that contamination is a
12 benefit to the community?

13 A I would say that that is the
14 inference you would draw from his -- from --
15 just as you would draw from my report that
16 the contamination has been a harm to the
17 community financially.

18 Q So that's your inference; it's not
19 his statement.

20 MS. JOELSON: Object to the
21 form.

22 A I stand behind my statement based
23 on his report.

24 Q Doesn't Dr. Mullin, in fact, say

1 that the remedies that Saint-Gobain has
2 agreed to fund have removed any alleged harm
3 that may have occurred for the vast majority
4 of proposed class members?

5 A Sure. We're both considering what
6 the harm will be beyond the remedy that's
7 been offered, so we're both doing that.

8 Q So Dr. Mullin says that the remedy
9 has benefited the community, and you accuse
10 him of saying that the contamination has
11 benefited the community; is that correct?

12 MS. JOSELSON: Object to the
13 form.

14 A No, I -- I would not -- if he says
15 that the remedy has benefited the community,
16 that's incorrect. The community was faced
17 with a groundwater problem, and the remedy is
18 necessary to -- to address the health risks
19 of it.

20 There's no benefit there.
21 That's just putting people back to --
22 hopefully back to where they were prior to --
23 to the event.

24 Q I'm not asking about your appraisal

1 of the accuracy of his methodology. I'm
2 asking about whether you've even fairly
3 stated what his opinion is.

4 Because you said that he's
5 saying the contamination has benefited the
6 community; and, in fact, his opinion is that
7 remediation has benefited the community.

8 Isn't that correct?

9 MS. JOSELSON: Object to the
10 form.

11 A I think that's a painful
12 reinterpretation of what he said.

13 Q Do you believe that a direct quote
14 from his report is a painful reinterpretation
15 of what he said?

16 A I think you have to take his report
17 as a whole, not single sentences in it.

18 Q So as a whole, you've read his
19 direct statement that remediation has
20 benefited the community as saying that
21 contamination has benefited the community?

22 A I think that Dr. Mullin needs to
23 stand by his own report and what he wrote
24 originally, so...

1 Q I think that you need to stand by
2 your report.

3 MS. JOSELSON: Object.

4 A I -- yeah. Can we go on a break?
5 Can we go off the record?

6 MR. WILSON: We can do that.

7 THE DEPONENT: That's
8 combative and unnecessary, so don't do that.
9 It will take a lot longer --

10 THE VIDEOGRAPHER: The time is
11 10:14. We are going off the record.

12 (Recess.)

13 THE VIDEOGRAPHER: We are back
14 on the record. The time is 10:16 a.m.

15 BY MR. WILSON:

16 Q So in your merits report, you
17 opined that residents of the Village of
18 North Bennington who used a water softener
19 actually benefit by about \$65 a year from the
20 switch to municipal water; is that correct?

21 A I said they have a financial
22 savings as it relates to the cost of
23 obtaining water in the household.

24 Q Was that opining that those

1 residents had benefited from the
2 contamination?

3 A No.

4 Q Or that they had any kind of
5 financial savings from the contamination?

6 A No.

7 Q So in that case, you, like
8 Dr. Mullin, concluded that the switch to
9 municipal water, at least for some people,
10 could provide a benefit; is that correct?

11 A What I said is that there would be
12 a cost-savings to them. It doesn't
13 incorporate -- the -- the rest of my report
14 considers other categories of loss, and there
15 are also other witnesses who are considering
16 other categories of loss.

17 Q But --

18 A So I would not -- I would not
19 characterize that I found a benefit to those
20 individuals of the contamination. I found a
21 financial cost-savings of moving to municipal
22 water, which was necessary as a result of
23 contamination.

24 Q So when you do it, it's a financial

1 cost-savings from remediation; but when
2 Dr. Mullin does it, it's a benefit from
3 contamination?

4 MS. JOSELSON: Objection.
5 Form. Argumentative. Asked and answered.

6 A As I said before, I think if you
7 take my report in its totality and you take
8 his report in totality, I think the tone is
9 different.

10 Q If you take a look at page 13 of
11 your rebuttal to Dr. Mullin, the first bullet
12 on that page says, "Certain costs are the
13 same between our analyses, including the cost
14 of pressure tank replacement, pump
15 replacement, water softener unit replacement,
16 annual water softener operating costs, annual
17 electricity costs and the expected reduction
18 in home insurance."

19 Did I read that correctly?

20 A You did.

21 Q And the values that you used in
22 your analysis were average values; is that
23 correct? Or purported to be average values.

24 A Asked and answered at length in the

1 previous deposition.

2 Q I understand that you believe it's
3 been asked and answered. Your attorney can
4 object if she believes it's appropriate.

5 But I just want to confirm
6 that when you're talking about the
7 differences between these values in your
8 rebuttal report, the values that you used in
9 your original report were average values; is
10 that correct?

11 A What I'm talking about here in the
12 rebuttal report is that Dr. Mullin does
13 calculations and comes up with his own
14 estimate of damages. And for these cost
15 items, he uses the same numbers that I use.

16 Q And the numbers that you used
17 purported to be averages; is that correct?

18 MS. JOELSON: Objection.
19 Again, asked and answered.

20 A I wouldn't use the term
21 "purported." They were averages of expected
22 costs for these items, and they varied -- as
23 we've already talked about, they varied
24 depending on whether or not you had a water

1 softener or not.

2 Q And Dr. Mullin didn't agree with
3 your use of averages, did he?

4 A Well, he used the same -- what I'm
5 saying here is, in the analysis that he does,
6 in the calculations he performs, he uses the
7 same number that I use.

8 I don't know whether he agrees
9 with averages or not.

10 Q You mean there's nothing in
11 Dr. Mullin's report that would suggest
12 whether he has an opinion on your use of
13 averages?

14 A He believes that damages need to be
15 calculated individually, given individual
16 specific factors. So in that regard, he
17 doesn't like averages.

18 But then he proceeds to use my
19 number, which is an average, in his
20 calculation.

21 Q Is he using that because he
22 believes that's proper, or is he using that
23 to illustrate other methodological flaws in
24 your analysis?

1 A I would hope he thinks it's proper.

2 Q Does his report give you any
3 information about the reason he did that?

4 A You have to back up. I'm not sure
5 what you mean by that.

6 (Exhibit 6 marked for
7 identification.)

8 BY MR. WILSON:

9 Q So I've handed you what's been
10 marked for identification as Exhibit 6 to
11 your deposition.

12 Can you tell me what this is?

13 A It appears to be Dr. Mullin's
14 report in this matter. I'll take it that
15 it's a correct copy of that.

16 Q Turn to page 34 of this report.

17 A Yes.

18 Q The first paragraph of that says,
19 "In addition to all the individualized
20 deficiencies that would need to be remedied,
21 Mr. Unsworth's added cost damages suffer from
22 several errors and omissions that render them
23 unreliable. Once these particular errors and
24 omissions are addressed, the calculations

1 demonstrate that proposed class members, on
2 average, benefit from" -- that is -- or, in
3 parentheses, "are not harmed by the
4 transition to the municipal water supply.
5 Thus, in this section I identify the flaws in
6 Mr. Unsworth's calculations within his
7 framework that utilizes averages to calculate
8 damages. However, as I discussed elsewhere
9 in this report, including in Section 3,
10 Mr. Unsworth's use of averages is
11 inappropriate to begin with in this matter."

12 Did I read that correctly?

13 A You did.

14 Q Does that change your opinion about
15 what Mr. Unsworth [sic] is doing when he uses
16 the same numbers that you did?

17 A You mean Dr. Mullin?

18 Q I'm sorry, Dr. Mullin.

19 A I believe he wants to have his cake
20 and eat it too, here. He would like to
21 criticize my method, but then he applies my
22 method.

23 Q Isn't he, in fact, pointing out two
24 different flaws in your report? One, its

1 failure to address individualized
2 differences; and two, the fact that there are
3 additional costs that your report does not
4 account for?

5 A And that's why I said he wants his
6 cake and eat it, too. He wants to say that
7 the analysis is deficient, but then he also
8 wants to say that there's a financial benefit
9 to the folks who had wells in moving to the
10 municipal system.

11 So he does calculate a sum
12 certain for that number. So he wants to have
13 that number in his report. He doesn't simply
14 reject the method and all the numbers in
15 their entirety.

16 Q Can you tell me, is there anything
17 in here where Dr. Mullin purports to agree
18 with your use of averages?

19 A I don't think he -- well, he agrees
20 with the use of averages in that he applies
21 those same numbers that I apply in his
22 analysis to demonstrate the point he's trying
23 to make.

24 But if he didn't like my

1 numbers, he shouldn't have done the analysis.

2 Q If you just take a look at the
3 table of contents -- I think this will be,
4 hopefully, easy to do. This is on page
5 little i of the Mullin report.

6 Under Section III.C, it says,
7 "Individual differences among proposed class
8 members."

9 And under that, it says,
10 "Water usage, annualized cost of well
11 components, electricity usage and interest
12 rate."

13 Is that correct?

14 A That's correct.

15 Q So those items are all things that
16 Mr. Unsworth [sic] maintains are
17 individualized and not subject to averaging;
18 is that correct?

19 A You got it backwards again.

20 Q Dr. Mullin maintains are
21 individualized and not subject to averaging.

22 A I think he maintains that nearly
23 everything is individualized, would be the
24 conclusion you would draw from his report.

1 Q And at least all the things in that
2 list; is that correct?

3 A That's right.

4 Q Let's take a look now at page 3 of
5 your rebuttal to Dr. Mullin. Hopefully I can
6 stop calling him "Dr. Unsworth."

7 The last bullet on that page
8 says, "In arguing the proposed class members
9 exhibit too much 'material variation' to be
10 treated as a class, Dr. Mullin fails to
11 provide a definition or standard for that
12 term. As a result, any differences he finds
13 between proposed class members could arguably
14 be considered a material variation."

15 Did I read that correctly?

16 A You did.

17 Q Do you think variation among class
18 members would be material if because of that
19 variation it resulted in some experiencing a
20 net benefit from remediation and others not
21 experiencing a net benefit from remediation?

22 MS. JOSELSON: I'm going to
23 object to the form.

24 A I guess -- let me unpack that.

1 Neither of us are doing a benefit of
2 remediation. We're doing -- we're doing a
3 calculation in this case of factors that lead
4 municipal water to be more or less expensive
5 than wells.

6 There is no -- there is no
7 remedy to clean up the groundwater at the
8 site, so we're not calculating a benefit or a
9 remediation, in a classic term, that would be
10 used in the field.

11 This -- so you have to go back
12 to your question. I apologize.

13 Q Okay.

14 Semantics aside, I'll use your
15 terminology there. Would variation among
16 class members be material if because of that
17 variation some class members experienced a
18 net benefit from the switch to municipal
19 water and others did not?

20 A So they may experience a financial
21 cost-savings associated with their
22 consumption of domestic water. And I
23 actually reflect that in my numbers. There's
24 different numbers for different

1 subpopulations.

2 Q And my question is more about the
3 material variation.

4 Is the kind of difference that
5 would lead some people to experience a
6 financial cost-savings and others not to, is
7 that material variation?

8 MS. JOSELSON: Object to the
9 form.

10 A It would depend on the magnitude of
11 the variation and whether -- whether you
12 would think your estimates would be reliable
13 without it.

14 Q Well, for instance --

15 MS. JOSELSON: He's --

16 A We haven't -- he's introduced the
17 term "material variation" here, so I'm asking
18 him what it means.

19 Q And I'm wondering if it is apparent
20 in context.

21 For instance, your report
22 opines that whether someone has a water
23 softener and what town they live in can
24 affect whether they experienced a financial

1 cost-savings or did not as a result of the
2 switch to municipal water.

3 Is that correct?

4 A You could say that, yes.

5 Q So those items, of which town they
6 live in and whether or not they have a water
7 softener, are a material variation?

8 MS. JOELSON: Object.

9 A They're differences. I don't -- I
10 didn't use the term "material variation," so
11 I don't know what that term means legally
12 or...

13 Q Would it be fair to say that that
14 constitutes a material variation insofar as
15 it affects whether or not class members have
16 a financial cost-savings under your analysis?

17 MS. JOELSON: Object to form.

18 A If you define "material variation"
19 to be whether you have a financial
20 cost-savings or a financial hit, then that
21 would be a variation.

22 I'm just going to grab some
23 hot water.

24 Q Yes, we can go off the record.

1 THE VIDEOGRAPHER: The time is
2 10:29. We are going off the record.

3 (Recess.)

4 THE VIDEOGRAPHER: We are back
5 on the record. The time is 10:30.

6 BY MR. WILSON:

7 Q If you'll take a look at page 11 of
8 your rebuttal to Dr. Mullin.

9 The last sentence of the first
10 full paragraph says, "Specifically, there are
11 a common set of inputs that determine damages
12 across the proposed class. For example, all
13 but a few of the plaintiffs previously
14 reliant on private wells will be moving to
15 the municipal system."

16 Did I read that correctly?

17 A You did.

18 Q Is "all" the same as "most"?

19 A I would say "all" is -- the way I'm
20 using it here is more than "most."

21 Q Is "all but a few" the same as
22 "all"?

23 A I would say "all but a few" is even
24 a smaller number than as I'm using it here.

1 Q But is "all but a few" the same as
2 "all"?

3 A No.

4 Q So if there are some members of the
5 class that are not transitioning, then that
6 issue is not common to the class; is that
7 correct?

8 MS. JOSELSON: Object to the
9 form.

10 A What I'm pointing out here is
11 factors that I believe are common. And I
12 point out here that for some of the
13 individuals, their factors might differ, and
14 in my report I treat them differently.

15 Q So is your position that a factor
16 can still be common to the class even though
17 it's not the same for everyone?

18 MS. JOSELSON: Object to the
19 form.

20 A I would say yes.

21 Q Are you an attorney?

22 A No.

23 Q Next bullet there says, "All these
24 plaintiffs will pay easily quantifiable and

1 largely similar water bills following their
2 connection to these systems."

3 When you say "largely
4 similar," that means there is some
5 dissimilarity; is that correct?

6 A There could be. And some of it is
7 reflected in my analysis, and then there is
8 some uncertainty.

9 Q And that's because some customers
10 won't pay the flat rate; is that correct?

11 A It's possible. I'm not aware that
12 any residential customers actually selected
13 the volume rate.

14 Q And the only way to know the water
15 bill for each individual class member is to
16 look at their water bill; is that correct?

17 A You would -- well, to know it for
18 sure during my analysis, you'd have to look
19 at it today and be prescient with
20 understanding what it would be in the future.
21 So I'm taking reasonable information -- best
22 available information today and applying it.

23 Q And -- but the only way to know
24 what their water bill is today is to look at

1 their water bill today; is that correct?

2 A I think that's tautological, but
3 yes.

4 Q So the amount of the bills of the
5 putative class members is not common to the
6 entire putative class, is it?

7 MS. JOSELSON: Objection.

8 A No, I said -- what I said here is,
9 there's a common set of inputs that determine
10 damages. So the inputs can vary, but the set
11 of inputs is common.

12 I didn't say the numbers were
13 the same for all the individuals. I say a
14 common set of inputs.

15 Q So when you're saying "common set
16 of inputs," you're actually just talking
17 about the formula for damages is the same for
18 the entire putative class; is that correct?

19 MS. JOSELSON: Objection.

20 A You could -- you could define it as
21 a formula for the entire putative class, yes.

22 Q Well, that's significant, because
23 you're not making -- you're not making a
24 claim about how individualized the class is,

1 but rather how damages could be calculated
2 for an individual class member; is that
3 correct?

4 MS. JOSELSON: Object.

5 A I don't know what that means. I
6 didn't follow you.

7 Q So when you say "common inputs,"
8 you're just saying all of these things are
9 implicated in determining whether someone has
10 experienced damages?

11 A What I say is, is there's a common
12 set of inputs that determine damages across
13 the proposed class. So the factors that
14 would determine an individual's loss are
15 common across the individuals in this class.

16 Q So that is, to determine an
17 individual's damage in this class, for each
18 individual, you need to look to the same set
19 of things; is that correct?

20 MS. JOSELSON: I'm also going
21 to object that this was covered extensively
22 in the first deposition.

23 MR. WILSON: Emily, this is a
24 sentence that I'm quoting directly out of his

1 rebuttal report, so I think we have
2 discretion to address something that's in his
3 rebuttal report.

4 MS. JOSELSON: We have
5 disagreement about that. I'm just putting my
6 objection on the record.

7 MR. WILSON: Okay.

8 A So -- so the purpose of this
9 section is that Dr. Mullin rejects the idea
10 that there can be a common methodology. He
11 says the damages must be individualized.

12 I am disagreeing with that
13 opinion, and I'm saying no, I think that
14 there can be a common methodology and there's
15 a common set of inputs, that there is -- that
16 the similarities here dominate over the
17 differences, and it would be reasonably
18 efficient and effective to address this as a
19 class.

20 This -- and I also in my
21 previous deposition talked about the fact
22 that you can calculate damages and then apply
23 a formula to distribute them, which, by the
24 way, is the opinion of Dr. Jackson, who wrote

1 that in a paper that he wrote, the same
2 opinion.

3 Q We'll get to Dr. Jackson later.

4 In terms of Dr. Mullin,
5 Dr. Mullin is not saying that we don't use
6 the same formula to determine each
7 individual's damages; is that correct?

8 A He's rejecting a class-based damage
9 model in its entirety.

10 Q Because a class-based damages model
11 has to be a situation where you don't need
12 individualized data to determine the claims
13 of each individual; is that correct?

14 MS. JOELSON: Objection.

15 A I don't --

16 MS. JOELSON: And again,
17 extensively inquired into.

18 A I don't know if that's a legal --
19 if you're asking me to have a legal opinion.

20 The question I'm asking from
21 an analytic perspective as an analyst is, do
22 I believe that I can construct an analysis
23 that fairly represents the total damages to
24 the class, given the common factors those

1 class members have.

2 Q So the third bullet in this list
3 says, "All of these private well owners have
4 previously operated and maintained a
5 groundwater well which involves the use of a
6 standard set of equipment and an identical
7 list of operating and maintenance cost
8 items."

9 Did I read that correctly?

10 A You did.

11 Q Does everyone in the putative class
12 have the same kind of water pump?

13 A No. There, I was saying they
14 have -- I don't believe they have the same
15 brand or the same -- but they have a standard
16 set of equipment to get water out of the
17 ground.

18 Q Do they all have the same well
19 depth?

20 A No.

21 Q Do they all have the same expansion
22 tank?

23 A Probably not.

24 Q Do they all have the same water

1 softeners?

2 A I've already said that they don't.

3 Q Do they all have the same brand of
4 water softener?

5 A I would assume not.

6 Q Does all this equipment cost the
7 same amount for each person?

8 A I think it's within reason, yes.
9 There's similarities there. But was the
10 exact cost the same for all those
11 individuals? No.

12 Q How do you know the cost was the
13 same if you haven't evaluated what the costs
14 were throughout the putative class?

15 MS. JOELSON: Objection.

16 A Well, I'm assuming if they go buy a
17 water pump, they're going to buy the one
18 that's reasonably priced, and that's going to
19 be the same for all individuals.

20 Q Does all of the equipment cost the
21 same amount to maintain?

22 A It has the same list of operating
23 and maintenance costs, is what I said.
24 That's how you read it.

1 Q So does it cost the same amount to
2 maintain?

3 A I wouldn't assume it's exactly the
4 same for each household, no.

5 Q What would you assume is the range
6 of variation in maintenance costs?

7 MS. JOSELSON: Objection.
8 Asked extensively in the last depo.

9 A Leaving aside the fact that we
10 covered this in the last deposition, for the
11 well, I include a cost item for replacing the
12 pump. I do not include a line item for
13 maintaining the pump.

14 Q So what would your assumption be
15 about how much variation there is in the
16 operation and maintenance costs of a well?

17 A I wouldn't assume over time there
18 would be much variation at all. I would
19 assume the average is accurate.

20 Q But to know what the average is,
21 don't you need to know something about the
22 range of variation within the class as to
23 those costs?

24 MS. JOSELSON: Again, my

1 objection continues.

2 A We covered this at multiple,
3 multiple pages. We can pull out the old
4 deposition, if you want.

5 Q Well, the trouble I have,
6 Mr. Unsworth, is that we did cover this
7 before, but you chose to put this again into
8 your rebuttal report.

9 Now, our time to move to
10 strike rebuttal opinions in this case has not
11 yet come, and we may indeed need to strike
12 these opinions as having already been raised
13 in your original report.

14 But I think that it's fair
15 that, at a minimum, if you put it in your
16 rebuttal report, we get to ask about it
17 again.

18 If you get to say it again, we
19 get to ask you about it again.

20 MS. JOSELSON: My objection
21 continues.

22 Q So how much -- withdrawn.

23 So to know what the average is
24 for these operation and maintenance costs,

1 don't you need to know something about the
2 range of variation within class with respect
3 to those costs?

4 MS. JOSELSON: Again, asked
5 and answered in the first depo.

6 A What I've done in my report in
7 doing the calculations, is stated that I
8 believe there's a reasonable estimate of that
9 cost item for members of the class, just like
10 there are for other cost items.

11 Q I'd like to know the methodological
12 question of whether the variation within the
13 class with respect to that item is relevant
14 to the determination of an average.

15 MS. JOSELSON: Again, asked
16 and answered extensively in the first depo.

17 A I averaged -- for the cost items
18 that I considered, I took an average of the
19 data that I had available to me on those cost
20 items.

21 Q And I'm asking you whether in
22 determining that average, the range of
23 variation within the class is a relative
24 consideration?

1 A What would be relevant would be if
2 the range of variation was so great as to
3 want to consider different subclasses, so to
4 speak, which I did in my original report.

5 I wouldn't consider the
6 standard deviation around the average to be
7 relevant in calculating a total damage.

8 Q Okay. So that might be helpful.
9 That might help us get somewhere.

10 So in your report, you assume,
11 I believe, that 80 percent of the class has
12 water softeners and 20 percent does not; is
13 that correct?

14 A That's correct.

15 Q And so you are purporting to assess
16 the distribution of water softeners among the
17 putative class; is that correct?

18 MS. JOSELSON: Again, asked
19 and answered.

20 A The frequency of occurrence of
21 water softeners in the -- in the class.

22 Q And that's an important part of
23 your analysis; is that correct?

24 A Yes, along with everything else I

1 did, yes.

2 Q And if you were wrong about that
3 80-20 split, if it was, in fact, 90-10 or
4 70-30, that would materially affect your
5 calculation of the total damages to the
6 class; is that correct?

7 MS. JOELSON: Objection.
8 These are exact questions that were asked in
9 the first deposition and are not relevant to
10 his rebuttal opinions.

11 A If you told me that I had, for
12 example, transposed a digit or something, it
13 would change my calculation, if that's what
14 you're asking.

15 Q I'm asking also if it turns out
16 that the -- that your assumption that 80
17 percent of the class has water softeners
18 turns out to be factually incorrect and, in
19 fact, 90 percent of the class has water
20 softeners, that would materially reflect the
21 accuracy of your estimate of damages to the
22 class, wouldn't it?

23 A If that information was presented
24 to me, I'd have to consider it as new

1 information.

2 Q And if we swapped in the 80 for a
3 90 in your analysis, we'd get a significantly
4 different number, wouldn't we?

5 A You would get a different number.
6 I don't know if it would be significantly
7 different, but you would get a different
8 number.

9 Q So the next bullet on
10 page 11 says, "All of the plaintiffs not
11 moving to the municipal system will be forced
12 to operate POETs indefinitely."

13 Did I read that correctly?

14 A You did, but you left out the
15 footnote, which is important.

16 Q Just for the record, I'll read the
17 footnote.

18 "In some cases, it may be
19 feasible to drill deeper wells or make other
20 modifications to these plaintiffs' wells to
21 assure safe drinking water, Barr Engineering
22 2018. However, at this time it is not known
23 how feasible such actions would be for this
24 limited number of plaintiffs."

1 Did I read that correctly?

2 A You did.

3 Q I'd like you to take a look at
4 page 66 of your deposition transcript. The
5 first question on that page says:

6 "And since it is not, it may
7 be that PFOA is no longer detected in the
8 groundwater at one putative class" --

9 A Wait. I apologize. I'm not seeing
10 where you are. You said page 66 of the
11 deposition?

12 Q Page 66 of the deposition. First
13 question on that page.

14 A Oh, sorry, yes.

15 Q "And since it is not, it may be
16 that PFOA is no longer detected in the
17 groundwater at one putative class member's
18 property before it leaves another putative
19 class member's property; is that correct?

20 "Ms. Joselson: Object to the
21 form.

22 "Answer: I'm not sure what
23 you mean by 'leaves.' You mean physically
24 moves in the environment or --

1 "Question: Yes, that it may
2 be that one property gets non-detect readings
3 for eight consecutive rounds of quarterly
4 sampling, and yet it's still detectable in
5 another class member's property.

6 "Ms. Joselson: Object to the
7 form.

8 "Question: Is that correct?

9 "Answer: I think that's a
10 hypothetical, but I can imagine that could
11 happen, yes."

12 Did I read that correctly?

13 A Yes.

14 Q So this testimony that you
15 previously gave was discussing that
16 restrictions on groundwater may be lifted if
17 eight consecutive rounds of sampling showed
18 non-detect results; is that correct?

19 MS. JOSELSON: Objection.
20 Asked and answered.

21 A You're saying in my deposition?

22 Q Yes.

23 A I don't -- sitting here today, I
24 don't remember how many rounds of results

1 they need to go through, and that would -- of
2 course that's the requirement on the
3 regulated party.

4 The homeowner might obviously
5 choose to continue to operate a POET, not
6 knowing what their concentrations are moving
7 forward.

8 Q But you acknowledge that it's
9 possible that PFOA could leave the water at
10 one class member's property before leaving
11 the water at another class member's property;
12 is that correct?

13 A I don't know what you mean by the
14 term "leave" the property. The variation
15 they would be seeing in PFOA levels would be
16 related to the concentrations that are coming
17 up the well. I don't know where the PFOA has
18 gone. I don't -- you know.

19 Q But it may be that PFOA would no
20 longer be detected at one property before it
21 was no longer detected at another property?

22 You previously acknowledged
23 that that could happen; is that correct?

24 A Yes, I think physically that could

1 happen.

2 Q So that means it's not true of
3 everyone who's on POET, that they will all be
4 precluded from using their groundwater
5 indefinitely; is that correct?

6 A I don't know that to be the case
7 today.

8 What I do know is that those
9 folks have POETs today and they're trying to
10 find a remedy for them, and I don't know what
11 the future will bring, and neither do they.

12 Just as in your example where
13 the PFOA levels might drop below threshold,
14 it's not unusual to see rebound in a well,
15 and you might go back above threshold.

16 Q Let's head over to page 11 of your
17 rebuttal to Dr. Mullin.

18 A I think that's where we were.

19 MS. JOSELSON: And, Linc, I
20 just noted that I'd like to take a break
21 every hour, but we have had a quite scattered
22 first hour, so whenever you're ready.

23 MR. WILSON: Yes.

24 Why don't we -- why don't we take

1 a break now, and that -- before I start this
2 next question, and then we'll maybe have one
3 more hour before lunch.

4 Does that sound okay?

5 MS. JOSELSON: Up to you.

6 MR. WILSON: Okay. Off the
7 record.

8 THE VIDEOGRAPHER: The time is
9 10:48. We're going off the record.

10 (Recess.)

11 THE VIDEOGRAPHER: We are back
12 on the record. The time is 11:02 a.m.

13 BY MR. WILSON:

14 Q Mr. Unsworth, if you would turn to
15 page 11 of your rebuttal to Dr. Mullin.

16 A Okay.

17 Q And if you would look at the final
18 sentence of the last full paragraph, it says,
19 "As such, the problems he raises are ones of
20 fair allocation, not monetary damage
21 assessment to a class of individual
22 plaintiffs."

23 Did I read that correctly?

24 A Yes.

1 Q And the "he" there is referring to
2 Dr. Mullin; is that correct?

3 A That's correct.

4 Q Is that an acknowledgment that he
5 does raise legitimate problems?

6 A It's an acknowledgment that he's
7 effectively asking or answering a different
8 question.

9 I'm estimating damages to a
10 class of plaintiffs, which I believe are
11 based on a set of common factors and common
12 calculations and assumptions. And what he's
13 asking is, do any of the plaintiffs differ
14 from one another.

15 And what I'm saying is, that
16 to the extent they differ, it can be
17 addressed through the allocation process,
18 which is very common.

19 Q So you're saying that instead of
20 considering those individual differences now,
21 we can use average values to determine the
22 total amount of class damages, and then in a
23 separate proceeding, determine each
24 individual plaintiff's share of that total;

1 is that correct?

2 A What I said there would be there's
3 multiple allocation options for those damages
4 that would be fair.

5 Q I just want to find out how much of
6 what I just said you agree with as a
7 statement of your opinion.

8 So you're saying that instead
9 of considering individual issues now, we can
10 use average values to determine the total
11 amount of damages to the class, and then by
12 some other allocation process, determine each
13 individual class member's share of that
14 total?

15 MS. JOELSON: Objection.

16 A That -- well, you go -- you go
17 beyond the sentence when you say that, but
18 that is what I testified to at the previous
19 deposition, that we can calculate a total
20 damage based on common factors, which do vary
21 based on where you are and what kind of
22 assumptions we make about equipment.

23 And then we could allocate
24 those damages fairly based on either

1 formulaic approach or some other approach.

2 Q So while you would develop the
3 total award based on values that you
4 determine to be average or representative, at
5 the allocation stage you might find that some
6 plaintiffs have larger values for those
7 inputs and some plaintiffs have smaller
8 values; is that correct?

9 MS. JOELSON: Asked in the
10 first depo.

11 A I would -- I would expect them to,
12 because that's what my damages model did.

13 Q And in the allocation process, you
14 might find some plaintiffs to have more
15 damages than the average?

16 A Depending on how you do the
17 allocation, you may find that.

18 Q And you might find some that had
19 less?

20 A By definition, if some have more,
21 some would have less, yes.

22 Q And you might even find some who
23 had none at all, like the plaintiffs who do
24 not have water softeners in the Village of

1 North Bennington?

2 A I've already -- I've already
3 testified to that.

4 Q Is that what -- is that correct?

5 A That's how my calculations were
6 performed, yes.

7 Q And the allocation process could
8 reveal additional plaintiffs who, like those
9 people in the Village of North Bennington
10 with water softeners, don't experience any
11 added costs from the switch to municipal
12 water; is that correct?

13 MS. JOELSON: Objection. All
14 asked in the previous depo.

15 A That's not my expectation based on
16 the work I've done, that there would be
17 someone, for example, in Bennington who did
18 not have a water softener who would -- would
19 actually be better off paying their municipal
20 water bill. It doesn't appear to be the
21 case.

22 Q For example, if you found
23 plaintiffs who had, perhaps, an
24 extraordinarily low well depth and high cost

1 of maintaining their equipment and expensive
2 well equipment, those plaintiffs might, by
3 virtue of those significant costs associated
4 with maintaining a well, ultimately have a
5 financial cost-savings, as you put it, from
6 the transition to municipal water; is that
7 correct?

8 MS. JOSELSON: Objection.

9 A You're not using the well term. A
10 very low well would not be a deep well, so --

11 Q I meant "deep" by saying --

12 A Probably better off to use "deep"
13 and "shallow," to be correct.

14 But is it possible somebody
15 out there is like that? It's possible. But
16 I think the averages work fine for
17 calculating damages at the class level, and
18 they can be allocated or assigned later.

19 Q And so those individual factors
20 would be considered in the allocation stage?

21 MS. JOSELSON: Objection.

22 A They might be. Or there might be
23 another methodology.

24 Q How would you propose to conduct

1 that allocation?

2 A I spoke about it, I think, in the
3 first deposition. I think that you could use
4 a formulaic approach, so you could use the
5 same values that are in our damage
6 calculations.

7 You could use additional
8 values. We've done that in cases I'm
9 involved in, where we've calculated damages
10 to a class, so we have an allocations scheme
11 for the damages that are available after
12 they've been awarded.

13 You also could do what they've
14 done, for example, in the VW matter, which is
15 establish a trust and allow folks to submit
16 their water bills to that trust. And if the
17 water bills are paid for, they're, by
18 definition, made whole for some period of
19 time.

20 So there's a variety of ways
21 you could accomplish this that I think would
22 be fair.

23 Q Are all of those processes that
24 you've described settlement processes as

1 opposed to litigation processes?

2 MS. JOSELSON: Objection.

3 A No, I wouldn't say that's the case.
4 I think -- in fact, I've mentioned earlier
5 Dr. Jackson in one of his reports talks about
6 the use of hedonic models to calculate total
7 damages and then the use of a second-phase
8 allocation of those damages.

9 Q I'm asking, to be clear, when
10 courts have followed the allocation programs
11 that you've described, have any of them done
12 it based on an order as opposed to a
13 settlement of the parties that set up that
14 program?

15 A I'm not sure, actually. I'm not a
16 lawyer, so I'm not sure what the -- what the
17 structure of it was.

18 Q What individual factors would you
19 consider in conducting an allocation?

20 A I would consider some of the same
21 factors that -- I would consider all the same
22 factors that are in my damage equation.

23 Q So would you consider the actual
24 water bills of the putative class members?

1 A You might, yes.

2 Q Would you consider the actual well
3 pump replacement cost and duration of
4 lifespan?

5 A No, I would probably use the
6 average for that, because we're talking about
7 compensation over a very long period of time.
8 So I don't know how we would get an accurate
9 measure.

10 If someone happened to replace
11 their well pump the year before versus
12 somebody who didn't, I think -- on average,
13 it's going to work out in the long run.

14 Q And if someone came to you and
15 said, Mr. Unsworth, I was able to replace my
16 well pump for next to nothing, and I did it
17 right before this class action started, and
18 I'm getting, you know, unfairly treated by
19 this allocation because my costs for well
20 maintenance are extraordinarily low, would it
21 then be appropriate to consider that
22 individual's low well pump replacement costs
23 in allocating damages?

24 MS. JOSELSON: Again, I'm

1 going to object not only to the form but to
2 the fact that this is reploting ground in
3 Mr. Unsworth's original reports.

4 MR. WILSON: And I'll respond
5 to that objection and note that we're
6 discussing, on page 11 of Mr. Unsworth's
7 rebuttal report, his statements about an
8 allocation proceeding for the damages here.
9 We're trying to determine the content of it.

10 BY MR. WILSON:

11 Q So I'm going to ask that question
12 again.

13 So if someone comes to you and
14 says, Mr. Unsworth, I was able to replace my
15 well pump for next to nothing. I did it
16 right before this class action started. And
17 I'm getting unfairly treated by the
18 allocation because my costs for well
19 maintenance are extraordinarily low. Would
20 it be appropriate to consider that
21 individual's well pump replacement costs and
22 the time in which they performed the work in
23 the allocation proceeding?

24 MS. JOSELSON: Objection.

1 A And as I said in my earlier
2 deposition, we're trying to assign losses
3 here over a 30- to a 99-year period, and so I
4 think the averages are more reflective than
5 something that happened last year, so the
6 fairness would come through the average.

7 There are going to be
8 different timings of things, but it's
9 reasonable to --

10 Q How is it fair to compensate a
11 plaintiff based on less than their
12 demonstrable actual expenses?

13 MS. JOELSON: Objection.

14 A Because you're talking about what
15 you're considering their demonstrable
16 expenses in a single year over a very long
17 time period.

18 Q Would it be appropriate to consider
19 the cost of tank replacement and the lifespan
20 of a tank in an allocation proceeding?

21 A The -- well, my damages analysis
22 considers the cost of a tank and the lifespan
23 of the tank. And we're not --

24 You might go to a damages

1 model which reallocates damages based on the
2 tenure of the equipment in the household, the
3 undepreciated tenure. That's not how my
4 model was constructed. It was constructed as
5 an expected value.

6 Q I'm not asking about your model for
7 total class damages, though. I'm asking
8 about an allocation proceeding.

9 So would it be appropriate to
10 consider if someone comes and says to you,
11 Mrs. Unsworth, your estimate for tank
12 replacement actually overshot my actual cost
13 of tank replacement by quite a bit. I'd like
14 to submit that to you in connection with this
15 allocation proceeding. Would you consider
16 it?

17 Will it be appropriate for you
18 to consider that?

19 MS. JOSELSON: Again, this is
20 all subject of his original reports.

21 A It would depend on what overall
22 formula you came up with for the allocation
23 to know whether that fits in with the other.
24 As I said, it's an expected value damage, and

1 so I would want the allocation to be placed
2 on expected costs associated with moving to
3 the municipal system, not a one-year cost. I
4 don't think that would be fair.

5 Q Or not an actual cost?

6 A Or not an actual cost if it
7 represents simply a one-year cost.

8 Q So you think it's appropriate to
9 consider actual costs for water testing but
10 not to consider actual costs for equipment?

11 A Well, because one is an annual cost
12 and the other one isn't. One is a -- one is
13 a periodic annual cost, and the other one is
14 one that occurs on a longer time frame.

15 Q So you do agree that --

16 A So I take an expected value
17 approach to each of those, and it just
18 happens one of them is an annual.

19 Q So you do agree that a periodic
20 expense that needs to be capitalized is
21 different than a monthly or an annual expense
22 in terms of how you treat it economically?

23 MS. JOELSON: Objection both
24 to form and to the fact that it's the subject

1 of his original opinions.

2 A So I have to unpack that.

3 I think a periodic expense,
4 such as replacing a pressure tank, should be
5 treated as such, should occur periodically.
6 I don't -- I don't capitalize it within my
7 model. I assume an expected value framework,
8 and I talk about the problems with that in
9 Dr. Mullin's report and the problems with
10 capitalization using a high discount rate.

11 Q Would it be appropriate to consider
12 the actual electric bills of an individual
13 class member in an allocation proceeding?

14 A I don't think you'd ever be able to
15 draw out the component of the electric bill
16 that deals with the pump.

17 Q Would it be appropriate to consider
18 the actual maintenance that they performed on
19 their well?

20 MS. JOSELSON: Again, this
21 whole line was asked in the first depo.

22 A No, I would say no. I would say
23 I'm going to go back to my very clear opinion
24 that the averages, I think, work well, and I

1 would not consider that factor of, say, an
2 undepreciated piece of capital equipment in
3 the allocation. Not the allocation schemes
4 that I'm thinking of.

5 Q Would it be appropriate to consider
6 the actual water tests that the individual
7 performed?

8 MS. JOELSON: Again, asked in
9 the first depo.

10 A Again, on average, no, because I
11 would -- well, I do consider it in my damages
12 model, and I would transfer that over if
13 they're in the area that would be expected to
14 typically do costs.

15 So in that case, it was
16 considered in the damages model, and so it
17 would be reasonable, if we can, to consider
18 it in the allocation scheme.

19 Or, as I mentioned, there are
20 other methods for compensating the harmed
21 parties besides the formulaic approach.

22 Q So would it be appropriate to
23 consider the salvage value of equipment?

24 A That was not considered -- I

1 considered an expected value framework, so I
2 would not consider that to be appropriate.

3 Q Would it be appropriate to consider
4 the individual financing available to a
5 plaintiff class member?

6 A No.

7 Q So I'm a little confused here,
8 because you say that the problems that
9 Dr. Mullin raises are ones of fair
10 allocation, not monetary assessment to a
11 class of individual plaintiffs; and yet you
12 say that even in allocation, we shouldn't
13 even be considering, really, any of the
14 problems raised by Dr. Mullin; is that
15 correct?

16 MS. JOELSON: Object to the
17 form.

18 A No, I don't think that is correct.

19 I said that you would -- you
20 would need to come up with a formula that's
21 fair. It may consider some of the same
22 factors that we're talking about here.

23 Or you could consider a
24 different approach, where you allocate it,

1 for example, based through a trust that pays
2 water bills.

3 There are a variety of ways to
4 get to a fair outcome here efficiently
5 without going house by house and item by
6 item.

7 Q So which individual factors should
8 be considered in an allocation proceeding?

9 A I would -- I've said before, if the
10 allocation is going to be a dollar-based
11 allocation as opposed to a trust, I would use
12 the same factors I have in my damage model.

13 Q And you would take individual
14 amounts for those factors?

15 MS. JOELSON: Object to the
16 form.

17 A If I had them, I would. And I
18 would expect, on average, they would work.
19 Or I would use a more efficient method of
20 using averages, given the time period we're
21 talking about here.

22 Because people's costs are
23 going to vary through time, but they're going
24 to go back to the average.

1 Q What method did you use to choose
2 which variables you would include in your
3 damages analysis and which ones you would
4 not?

5 MS. JOSELSON: Objection.
6 Clearly asked in the first depo, and goes
7 primarily to his merits and class opinions.

8 MR. WILSON: Emily, I'm going
9 to give you that one. Withdrawn.

10 BY MR. WILSON:

11 Q Let's take a look at page 21 of
12 your rebuttal to Dr. Mullin.

13 So in the -- I think, the
14 fourth sentence of the first paragraph, it
15 says, "As such, we can assess the credibility
16 of Dr.~Mullin's opinion by considering the
17 effect his asserted change in the cost of
18 water would have on property values. He
19 believes the proposed class members who
20 previously relied on private wells will
21 experience \$37 a year to \$587 a year benefit,
22 that is, cost savings. Note that this
23 benefit does not incorporate other benefits
24 he asserts. Incorporating these factors

1 increases his estimated benefits to at least
2 \$252 a year to \$802 a year."

3 Did I read that correctly?

4 A You did.

5 Q So your report doesn't specifically
6 enumerate which of the benefits that
7 Dr. Mullin is talking about that you're
8 trying to account for.

9 My math suggests -- and I'm a
10 lawyer, so I ask you to bear with me -- that
11 you're basically adding \$215 to the amounts
12 calculated by Dr. Mullin?

13 A No, I wouldn't say that. I would
14 say he explicitly calculates the 37 to 587,
15 but he also says that there are other
16 benefits that he's not incorporating, and so
17 we attempted to include those in, based on
18 the information he provided.

19 Q Okay.

20 And you've determined that
21 those benefits -- you've priced them at the
22 amount of \$215; is that correct?

23 A Ummm --

24 Q Because 37 plus 215 equals 252, and

1 587 plus 215 equals 802?

2 A Yeah, sitting here right now, I'm
3 not sure which -- I'd have to go back to the
4 original report to see which values, but
5 you're doing your math correctly.

6 Q Okay.

7 And can you tell me what
8 benefits that number is accounting for?

9 A I'd have to go back to his original
10 report.

11 There are some items that he
12 chose to not include in his tables, and so it
13 would be calculations based on those items.

14 Q Neither your report nor the
15 reliance materials that you produced to us
16 explained how you got to that \$215 number, so
17 we're wondering if you could tell us where it
18 came from.

19 A As I said, I would have to go back
20 and recreate that analysis. I think it's a
21 pretty simple analysis of -- of the numbers
22 he presents.

23 Q Okay.

24 I'll just tell you that we

1 haven't received it in any of the materials
2 that were provided to us.

3 Do you have the materials
4 today that would allow you to reconstruct
5 that analysis?

6 A No.

7 MS. JOSELSON: I'm also going
8 to just put on the record that there were
9 many mathematical analyses in Dr. Mullin's
10 report for which we were not provided any
11 methodology tabulation or reliance materials.

12 MR. WILSON: So I'll just say
13 that we'll -- Emily, we'll make a request
14 after the deposition to get any additional
15 material that -- information we need about
16 that number; and certainly if there's any
17 information in Dr. Mullin's report that's --
18 any reliance materials that haven't been
19 provided, we'll be happy to give them.

20 MS. JOSELSON: Well, we've
21 already met and conferred and have not gotten
22 the requested reliance materials, and we've
23 provided you with all of Mr. Unsworth's
24 reliance materials.

1 (Pause.)

2 BY MR. WILSON:

3 Q So in your rebuttal report, is it
4 correct that you disagreed with Dr. Mullin's
5 opinion that you should have included a value
6 for regular well maintenance in your damages
7 model?

8 A I did, and I explained why I felt
9 that wasn't appropriate.

10 Q And on page 17 of your rebuttal to
11 Dr. Mullin, you said that, "Despite the
12 suggestion that a well owner spends \$110 each
13 year, a rational individual would only
14 conduct maintenance on an item if the cost of
15 doing so was less than the expected savings.
16 For example, if we assume a residential
17 property is owned for 20 years, this owner
18 would incur 2200 in well maintenance
19 expenses. A rational well owner would only
20 incur this cost if he or she viewed it as
21 likely to reduce operating or equipment
22 costs. Thus, it's unreasonable to assume
23 that every well owner would assume this cost.
24 What would be reasonable to assume, that well

1 owners that conduct maintenance benefit from
2 longer lifespan of equipment."

3 Did I read that correctly?

4 A That's right.

5 Q So although your analysis did not
6 include a number for maintenance on wells,
7 you're suggesting that some class members do
8 conduct maintenance on their wells; is that
9 correct?

10 MS. JOSELSON: Object to the
11 form.

12 A What I say is, if they do, and if I
13 assume they're rational, they're doing it
14 because they see a benefit to it. And so it
15 nets out of my analysis, because their wells
16 are going to be cheaper to operate or last
17 longer. Otherwise, you wouldn't do it.

18 Q And you say that, to know whether
19 maintenance happened, we basically need to
20 know, then, whether maintenance would be
21 cost-effective; is that correct?

22 A Yes. And I think the calculation I
23 perform here calls that into question.

24 Q Is this a calculation that you're

1 performing here, or is that just a summary of
2 a -- of a framework for how we should
3 evaluate this?

4 A Well, it said that if it's 110
5 bucks a year and it's 20 years -- you can do
6 the calculation.

7 Q I understand what you're referring
8 to now. Thank you.

9 So in order to know whether an
10 individual would properly incur a maintenance
11 charge for a well, we need to know whether
12 and under what circumstances certain kinds of
13 maintenance would reduce operating or
14 equipment costs; is that correct?

15 MS. JOSELSON: All asked in
16 the first depo.

17 A Yes. I guess I would simplify it.
18 I -- being a homeowner and being an
19 economist, I would say that you -- you spend
20 the money on maintaining things, and you go
21 through the effort of -- of doing the annual
22 maintenance if you think it's beneficial.

23 Otherwise, you basically allow
24 the equipment to live out its life, and you

1 replace it.

2 Q And so to know whether maintenance
3 would be appropriate, we need to consider
4 those factors, whether the maintenance would
5 reduce operating or equipment costs as to
6 specific equipment?

7 MS. JOSELSON: Again, asked
8 and answered. And objection to form.

9 A Right.

10 And what I'm saying is, based
11 on the simple presentation of the numbers
12 here, I would not expect people to do this,
13 unless they saw a benefit from it, in which
14 case it would -- it would net out of my
15 analysis.

16 So this just flows from a
17 logic of when to maintain something.

18 Q Now, if maintenance were performed
19 and it reduced equipment costs, we would also
20 need to offset the cost of that maintenance
21 against the cost of replacing the equipment;
22 is that correct?

23 A I think what you said is if
24 maintenance helps improve the lifespan of the

1 equipment? Is that what you're saying?

2 Q Yes.

3 A Then you would consider whether the
4 maintenance is worth it relative to that.

5 Q Yes.

6 But I'm wondering whether in
7 your analysis if there's an individual who
8 performs maintenance and it does reduce their
9 equipment costs, then do we need to add the
10 maintenance cost but offset it against a
11 reduction in equipment costs?

12 MS. JOSELSON: Objection to
13 form and subject to first depo.

14 A And that's exactly what I say I'm
15 doing, and I'm saying that it likely nets
16 itself. That would be the rational pricing
17 for maintenance would be the net to the
18 value --

19 I'm saying that I would -- I'm
20 saying that I believe that the benefit of
21 performing maintenance will be the cost --
22 and will be -- will offset the cost of it;
23 and therefore, this is not an item I think
24 needs to be included to come up with an

1 estimate of well maintenance, because I would
2 have to then increase the lifespan of my well
3 equipment.

4 Q What methodology did you use to
5 determine that those things would equal out?

6 A Logic. You would -- prices of
7 goods reflect the benefits provided by those
8 goods, so I would expect that -- the cost of
9 well maintenance to equal the benefit of
10 doing it. It's --

11 I'm an economist, so I believe
12 the market prices things correctly.

13 MR. WILSON: Before we go
14 further, Emily, I just want to note for the
15 record, I know you've been objecting to these
16 questions as asked and answered, and
17 certainly you're entitled to do that, but I
18 just want to put it on the record again that
19 I'm asking him questions about statements
20 that are directly stated in his rebuttal
21 report. We're looking here at page 17.

22 So I think it's entirely
23 appropriate for me to ask those questions,
24 though it may cover subject matter that was

1 included in Mr. Unsworth's original report,
2 because it's repeated in his rebuttal report,
3 it's proper for me to ask questions about it.
4 And I just wanted to state that for the
5 record.

6 MS. JOELSON: Right. I
7 understand it.

8 And I don't see any other way
9 around my unfortunate need to put my objections
10 on the record. I'm trying to limit them to
11 those which ask him again for information that
12 he already testified to and was available to be
13 asked in his first deposition.

14 And I understand what the
15 amended order states, but I do believe that
16 you're not permitted to, as Judge Crawford
17 said, replot old ground, except to the extent
18 necessary to understand rebuttal opinions.

19 MR. WILSON: And that's fine
20 for you to make your objections. I have no
21 problem with it. I just want -- should it
22 ever come before the judge, I want a clear
23 record of the questions that I'm asking and
24 why I'm asking them.

1 BY MR. WILSON:

2 Q Do economists treat a monthly
3 expense the same way they treat a capital
4 cost?

5 A Depends on how you do the analysis.

6 Q They often treat them differently;
7 is that correct?

8 A I would say I don't know how --
9 what the frequency is. It depends on how you
10 do your analysis.

11 Q So suppose I had \$100 monthly
12 expense for ten years. That would be a total
13 of \$12,000; is that correct?

14 A Mm-hmm. That's correct.

15 Q Now, suppose instead I had a
16 \$12,000 expense for an asset that has a life
17 of ten years, but it's due all at once.

18 Would an economist treat that
19 the same economically as the \$100 monthly
20 expense?

21 A It depends on the analysis you
22 construct. So if you -- if you have a
23 forecast of the occurrence of costs over
24 time, imagine building a spreadsheet to show

1 the flow of those costs, you have an expected
2 time period, you might do an analysis where
3 you, for example, calculate the present value
4 of each of them.

5 The alternative, which I've
6 chosen to do here, is to -- is to use an
7 expected value. So in any given year there's
8 an expected value of that capital cost, and
9 that's another way of doing analysis to --

10 Because, on average, the
11 community has an expected value of why
12 they've incurred that capital cost.

13 So there are two ways to do
14 it. That's not the way I've chosen to do it.

15 Q What -- can you cite any
16 peer-reviewed publications that support the
17 use of that methodology in this case?

18 A I'm not aware of any peer-reviewed
19 publications that support either methodology
20 for a case like this.

21 Q Are you aware of any textbooks that
22 would support the methodology used here?

23 A I could probably find a textbook
24 that talks about expected values, yes.

1 Q But you didn't cite any authorities
2 in the literature for doing your analysis
3 this way, in either your original report or
4 your rebuttal, did you?

5 MS. JOSELSON: Objection.

6 A I didn't cite any authorities for
7 doing it either way.

8 (Pause.)

9 BY MR. WILSON:

10 Q So you're talking about using your
11 model in a case where you're trying to come
12 up with an average expected cost each year to
13 a class member; is that correct?

14 A Yes.

15 Q But an individual within the
16 putative class, the reality of their
17 financial situation will likely be different
18 from the average, because they incur costs
19 within a specific year as capital costs; is
20 that correct?

21 MS. JOSELSON: Again, well
22 plowed, first dep.

23 A By definition, in the expected
24 value framework, you would expect that some

1 individuals in some years would experience a
2 capital cost, while others would not.

3 For example, if it's a 20-year
4 item, you would expect 1 in 20 individuals to
5 incur that cost.

6 So in any given year, I would
7 expect different individuals to have
8 different costs. But on average, I would
9 expect them to have the expected value cost.

10 Q Is there any individual in the
11 class who will not incur any capital costs at
12 the moment that they do replace their
13 equipment?

14 MS. JOSELSON: Objection.
15 First dep.

16 A I don't -- I don't know what that
17 means.

18 Q So every individual, when they do
19 choose to replace their equipment, will incur
20 capital costs as a result of that decision;
21 is that correct?

22 MS. JOSELSON: Same objection.

23 A I would assume, unless someone
24 gives them equipment for free, yes.

1 Q Does everyone in the putative class
2 own their own home?

3 A I would have to go back to the
4 class definition. I'm doing my calculations
5 on a residential property basis.

6 Q But you don't know whether even
7 those who are residential property owners own
8 their home as opposed to renting it; is that
9 correct?

10 MS. JOSELSON: I'm going to
11 object.

12 A Yeah, I think the way you said that
13 is not correct. You just said residential
14 property owners don't own their home.

15 Q I'm sorry.

16 Class members -- some of the
17 residential property class members own their
18 home and some of them rent it; is that
19 correct?

20 MS. JOSELSON: Objection.

21 A So I'm not going to -- I'm not an
22 expert on who's a class member here. What
23 I -- what I've done is, done an analysis of
24 residential properties within the class.

1 So whether there are
2 individuals who live in those homes who are
3 not owners of those homes, I don't know.

4 Q So if there's a homeowner who is a
5 member of the class and they have a mortgage
6 on their home, can they use that mortgage to
7 pay for new costs, like a water tank, a water
8 softener, a pump?

9 A If they have a line of credit, they
10 could, sure.

11 Q Not a mortgage. They would have to
12 use the line of credit; is that correct?

13 A Yeah, I don't know how the mortgage
14 is structured, but some mortgages come with a
15 line of credit.

16 Q Do home equity line of credits --
17 excuse me.

18 Home equity lines of credit,
19 do they have the same interest rate as
20 mortgages?

21 MS. JOELSON: Again, last
22 depo.

23 A Yeah, I do not know what the
24 current distribution of home equity versus --

1 depends on the individual. Depends on the
2 markets they're in.

3 Q The --

4 A Depends on how much equity they
5 have in their home, for example.

6 Q To your knowledge, home equity
7 lines of credit are often variable; is that
8 correct?

9 A You mean varying between
10 individuals?

11 Q Variable interest rates.

12 A You mean varying with time, like
13 a --

14 Q Yes.

15 A They could. I'm not an expert on
16 home equity lines of credit, so I'm not going
17 to give an opinion on that.

18 Q Does everyone in the putative class
19 have access to credit cards?

20 MS. JOSELSON: Again, last
21 dep.

22 A Yeah, I don't know. You would have
23 to point to something in the Mullin report or
24 one of the other reports that relates to this

1 topic. We talked at length about this in the
2 first deposition.

3 Q I don't think I have to point to
4 anything to ask the question, but I will do
5 so, in the interest of...

6 So just for your reference,
7 I'm looking at pages 17 and 18 of your
8 rebuttal report, which addresses how capital
9 expenditures should be treated in your
10 methodology, or whether they should be
11 treated as capital expenditures at all.

12 With that in mind, does
13 everyone in the putative class have access to
14 credit cards?

15 A I have no idea.

16 Q Because you didn't look?

17 A Did not look.

18 Q Now, you say that Dr. Mullin's
19 analysis erred because he failed to account
20 for the cost of stranded equipment; is that
21 correct?

22 A Well, it's more complicated than
23 that. He -- Dr. Mullin conducts a different
24 analysis. So he's assuming that folks would

1 have to finance the capital investments
2 needed to replace equipment, on average.
3 He's, again, using an average.

4 And he calculates what would
5 be the annual payments associated with those
6 capital investments until they're fully paid
7 for.

8 So the first part of my
9 opinion is that if he does that, he should be
10 doing it on both sides, so his but-for
11 condition should be similar.

12 Some of this capital equipment
13 isn't that different from the cost of paying
14 for a water bill, for example, and folks who
15 are -- who may not have cash flow may, in
16 fact, put it -- put their water bill on a
17 credit card.

18 So he's got to be fair in the
19 analysis to treat those two -- those cash
20 flows correctly if he wants to do it the way
21 he's doing it.

22 The second thing he needs to
23 do is recognize that if he believes folks
24 have financed all that equipment, that

1 everyone, pretty much except for the person
2 who just happened to have finished paying for
3 the piece of equipment, is going to have
4 undepreciated equipment in their household,
5 so to speak. In other words, they're still
6 paying finance charges on it.

7 And he would need to include
8 that, and I do a -- I do a simple calculation
9 to talk about the value of that -- of that
10 stranded equipment, if you want to take the
11 approach he's taken.

12 So I'm not disagreeing that
13 what he's trying to do isn't valid. What I'm
14 saying is, he's not doing it correctly and
15 fairly.

16 Q So I'm real interested in what you
17 described in the second part of your opinion
18 there, the cost of stranded equipment.

19 Did your opinion consider the
20 cost of stranded equipment?

21 A No, because I'm using expected
22 value framework, so it incorporates it by --
23 with the expectation that each year you're
24 going to have to, on average, make a capital

1 investment of some amount.

2 Q Did you consider the salvage value
3 of stranded equipment?

4 A No, I chose not to do my analysis
5 that way.

6 Q In critiquing Dr. Mullin's
7 analysis, did you consider the salvage value
8 of stranded equipment?

9 A What I say is, in his analysis, you
10 have to consider it. The way he's
11 constructed his analysis, you have to
12 consider it.

13 Q Where do you refer to the salvage
14 value in your critique of Dr. Mullin's
15 opinion?

16 A I say here that --

17 MS. JOELSON: If you just
18 want to give the page.

19 A Oh, page 18.

20 Q And what are we looking at?

21 A Well, I say that to be true to his
22 analysis, the harmed parties would continue
23 to make payments until the equipment was
24 fully paid for, so that's the stranded

1 equipment, what you're calling salvage value.

2 So the salvage value is the
3 opposite of the stranded equipment value.

4 Q Yes.

5 And you don't address salvage
6 value, do you?

7 A Whether you could take this
8 equipment and sell it? Is that what you're
9 referring to?

10 Q Yes.

11 A I do not address that, no.

12 Q And if we're going to determine
13 that salvage value, we would need to know how
14 far into the life cycle of the equipment it
15 was at the time of this switch to municipal
16 water; is that correct?

17 A As well as the market for used
18 pressure tanks and used pumps, et cetera.
19 I'm certain if you're looking for a used
20 pump, there's a bunch of plumbers out there
21 who would be happy to get you one.

22 Q Let's take a look at page 19 of
23 your rebuttal to Dr. Mullin.

24 It says in the paragraph in

1 the middle of the page, "In fact, new
2 customers of the system will largely be on
3 the fixed-price schedule. That is,
4 Dr. Mullin misunderstands that new water
5 utility customers in the Town of Bennington,
6 with the exception of several commercial and
7 multifamily properties, will all be under a
8 flat-rate billing system."

9 Did I read that correctly?

10 A You did.

11 Q And you cite a personal
12 communication with Jason Dolmetsch for this
13 proposition; is that correct?

14 A Yeah. In effect, in the totality
15 of my opinion, I say two sources. One was
16 the expectation in my first report that folks
17 would choose the flat-billing rate; and then
18 I checked with Jason, and he said people were
19 choosing the flat-billing rate. They were
20 choosing not to install meters.

21 Q And, just to be clear, was this the
22 same personal communication with him that you
23 cited in your original report or is this a
24 different communication?

1 A No, it's different, because time
2 had passed, so we knew what people were
3 choosing to do.

4 Q And was this a phone call with
5 Mr. Dolmetsch?

6 A Yes.

7 Q Did you create any memorandum or
8 note about that phone call?

9 A If I did, it would have been in my
10 discovery materials or it just went in the
11 report.

12 Q I'll represent to you that there
13 wasn't anything.

14 A So it was probably a single
15 question, and it went in the report.

16 Q So your basis -- the basis for your
17 opinion about this rate for Bennington only
18 is based on undocumented oral communication
19 that we did not witness and cannot verify; is
20 that correct?

21 MS. JOELSON: Objection.

22 A I think all oral communication,
23 unless you were there, you wouldn't witness
24 it, so...

1 Q And there's no documentation of it?

2 A The documentation is right here in
3 the report.

4 Q There's no --

5 A I could write it down on a separate
6 piece of paper, if you'd like, but it was a
7 single question I asked him.

8 Q You have no contemporaneous notes
9 about that communication, do you?

10 A If I did, they would have been in
11 discovery materials, but I can go check.

12 Q Let's take a look also on page 19,
13 the next paragraph, it says, middle of the
14 paragraph, "That is, while Dr. Mullin
15 questions the accuracy of my annual
16 electricity cost figure, as shown in
17 Exhibit 3, I assume an average annual
18 electricity cost of \$47. This value is the
19 same as that presented by Dr. Mullin for a
20 400-foot well pumping 300 gallons per day.
21 Both of these factors are supported by the
22 underlying evidence presented in both my
23 report and by Dr. Mullin."

24 A Mm-hmm.

1 Q Did I read that correctly?

2 A Mm-hmm.

3 Q Can you describe how you estimated
4 the annual electric costs of \$47 for each
5 resident?

6 A So we had previously done estimates
7 of what it costs to operate a well pump, and
8 the -- that's a function of the amount of
9 energy required to lift water and how much
10 you're lifting it, so that's why it's varying
11 across this chart. And it's a function of
12 how much electricity costs in the area you're
13 talking about.

14 So we took an estimate that we
15 had for that that we had done previously, and
16 we updated it for this area based on -- there
17 haven't been big changes in efficiencies of
18 pumps during that time period, and the well
19 depths were similar here, on average, to
20 where we had worked before, and so we just
21 updated it for the Vermont electricity
22 pricing.

23 Q And that was --

24 MS. JOSELSON: And I'll just

1 point out for the record, this was
2 extensively questioned in the first depo.

3 Q And just for clarity, that was --
4 that prior work was from the Lockformer case?

5 A That's right. And I don't
6 remember, sitting here today, whether those
7 calculations had extended to other venues.
8 They might have.

9 Q Does everyone in the putative class
10 here have 400-deep -- 400-foot-deep well?

11 A No, I would expect well depths to
12 vary.

13 Q Does everyone pump 300 gallons a
14 day?

15 A I would expect those to vary,
16 although there's some consistency in water
17 use by homeowners.

18 Q So depending on the depth of the
19 well and the amount of output, your chart
20 shows a range of \$6 to \$131 in annual
21 electric costs; is that correct?

22 MS. JOSELSON: Again, asked in
23 the first dep.

24 A It does. And I note in my text

1 here that some of those extremes may be
2 unrealistic. You may not be able to find a
3 well with those characteristics.

4 But this chart is simply a
5 recitation of values if you change those two
6 factors.

7 Q And so depending on the depth of
8 the well and the amount of output, your chart
9 shows a range of \$6 to \$131 in annual
10 electric costs; is that correct?

11 A I believe this chart is actually
12 out of the Mullin report. I think that's its
13 original...

14 Q But the chart that's listed on
15 page 20 of your report shows a variation from
16 \$6 to \$131; is that correct?

17 MS. JOSELSON: Object.

18 A It shows that. And, as I
19 mentioned, I don't know if there's anyone up
20 there with a 100-foot-deep well who only uses
21 100 gallons or if there's someone with a
22 600-foot-depth well that uses 600 gallons a
23 day.

24 That would be a lot of water

1 for a resident to use.

2 Q Because you didn't evaluate well
3 depths and water usage in the putative class
4 area, did you?

5 A Asked and answered in the first
6 deposition, but no, I did not.

7 Q If you have objections, I'll ask
8 your lawyer to assert them --

9 A Oh, sorry, yes.

10 Q -- since you represented you're
11 not, in fact, an attorney.

12 MS. JOSELSON: However, this
13 witness can recall what he was asked and what
14 he testified to in his first deposition, and
15 it's totally reasonable for him to respond to
16 that.

17 It shouldn't be construed as
18 legal objections.

19 BY MR. WILSON:

20 Q Wouldn't want you to go pro se.

21 A What does that mean?

22 MS. JOSELSON: Without a
23 lawyer. Representing yourself.

24 THE DEPONENT: Sorry.

1 BY MR. WILSON:

2 Q A lawyer who represents himself has
3 a fool for a client, they say.

4 A I've heard that, yes.

5 Q So it's possible that someone who
6 had a 600-foot-deep well and pumped 600
7 gallons a day, that their electric cost could
8 be almost \$100 more than the average cost
9 that you've calculated?

10 A If there were someone like that, it
11 would be. And the point of this exhibit was
12 to point out that the value that I applied,
13 which is also the value that Dr. Mullin
14 applies in his analysis, is in the centroid
15 of these values and is supported broadly by
16 typical household consumption and typical
17 well depth in this area.

18 Q And if that was someone looking
19 from the Town of Bennington who used a water
20 softener, where you're estimating the annual
21 cost increase was \$113 a year, then a -- an
22 additional electric charge of nearly a
23 hundred dollars would almost completely
24 eliminate any additional cost they have from

1 switching to municipal water; is that
2 correct?

3 MS. JOSELSON: Objection.

4 A In your hypothetical calculation of
5 that hypothetical individual, yes.

6 Q Let me cover one more topic, and we
7 can break for lunch. Let's turn to page 5 of
8 your rebuttal to Dr. Mullin.

9 It says at the top of this
10 page, "Dr. Mullin offers no insights into how
11 damages should be estimated for residents
12 forced to remain on POETs. It fails to
13 consider the obvious use of the cost to
14 connect these homes to the municipal system
15 as a measure of monetary damages."

16 Did I read that correctly?

17 A You did.

18 Q Why do you maintain it's obvious
19 that we would measure damages of people who
20 are not connected to the municipal system
21 based on the costs that they would incur if
22 they did connect to the municipal system?

23 A What I said was, you -- that -- I'm
24 not sure I would word it that way.

1 What I'm saying is, that there
2 is another solution for these individuals,
3 which is to go ahead and incur the cost of
4 getting them hooked up. It's not -- it's not
5 beyond the realm of possibility. It's just
6 expensive. And so that -- that is one way
7 that these folks could be remedied.

8 And my point here is that
9 there -- it's important to have some measure
10 of loss to these folks, and he's not offering
11 one.

12 Q Is there any statement in your
13 previous reports that these individuals may
14 be connected to the municipal system?

15 A I don't remember. When I wrote the
16 original report, there was some uncertainty
17 as to whether they would ultimately be
18 reached, or whether they would have to put in
19 deeper wells, for example, or whether they
20 would be left with POETs until the time they
21 didn't need them.

22 So I'd have to go back to my
23 original report and see if I considered that.
24 I was considering it at the time. Whether

1 it's in the report or not, I don't know, but
2 I know that's an uncertainty factor.

3 Q Are you aware of any evidence at
4 this time that connection of these
5 individuals to the municipal water system is
6 still being considered as a potential option?

7 A I would have to talk with Jason or
8 other folks who were involved in the actual
9 engineering to figure out where they're
10 turning out on these and whether they think
11 it could be addressed in the future.

12 Q Because you're not aware of any
13 evidence at this time that it's being
14 considered, are you?

15 A As I sit here right now, I would
16 say that I know it was considered in the
17 past, is what -- by definition, they were
18 trying to figure out whether they could get
19 to these folks.

20 I don't know whether those
21 discussions are continuing.

22 Q And the last you heard, was there a
23 determination that it was not feasible to
24 connect them; is that correct?

1 A That there are some number of folks
2 that it may not be feasible, and they're
3 looking at some alternatives.

4 Now, if those alternatives
5 aren't feasible, I would imagine they would
6 consider whether they could extend.

7 Q So we would also need to know
8 whether those individuals' wells can or will
9 be modified, as you mentioned; is that
10 correct?

11 A Right.

12 MS. JOSELSON: Object to the
13 form.

14 A That's right. That is one possible
15 solution.

16 Q And is there any way to determine
17 that, except by looking at the circumstances
18 of those individual properties?

19 A I think they're going to have to
20 drill and determine whether the water is --
21 comes out clean and whether it's -- has the
22 right yield and -- yeah.

23 Q So we'll need to conduct an inquiry
24 into the circumstances of that future

1 drilling and the recommendations that are
2 made about that to determine whether these
3 alternative methods of remediation are
4 feasible in these circumstances; is that
5 correct?

6 MS. JOSELSON: Object to the
7 form.

8 A I'm not sure I followed all that,
9 so...

10 Q We would need to inquire into the
11 circumstances of that future drilling that
12 you mentioned and the recommendations that
13 are made about the drilling to determine
14 whether these alternate methods for
15 remediation of these people on POETs are
16 feasible under the circumstances; is that
17 correct?

18 MS. JOSELSON: Again, same
19 objection.

20 A I think what I would say is, we're
21 going to have to wait and see how it turns
22 out.

23 Q And how it turns out depends on the
24 drilling and the reports; is that correct?

1 A Yeah, it depends on whether they're
2 successful in finding clean water in proper
3 quantity and stuff like that.

4 Q So when there's many potential
5 remediation options for these individuals on
6 POETs that are additional to the POET they
7 already have, and none of them have been
8 finally agreed to, proposed or determined in
9 any respect, how can you characterize any one
10 of those as a loss for purposes of your
11 damages analysis?

12 MS. JOSELSON: Object to the
13 form.

14 A I don't think I do. I don't think
15 that reflects the totality of my report.

16 What I say in the report, in
17 several spots in these reports, is that it
18 remains to be determined how these folks will
19 be -- how their water quality will be
20 addressed.

21 Obviously, I would imagine
22 there's pressure to have it addressed in a
23 manner that doesn't require continuous use of
24 POETs. You know, something like deeper

1 wells.

2 But I also understood from the
3 work that I did earlier and discussions I had
4 with the engineers that there still is the
5 possibility if that's not feasible that they
6 would return to the idea of hooking people
7 up.

8 But that is -- that is one
9 alternative, is to get water to folks.

10 Q So did you just pick the connection
11 to the municipal water instead of the
12 modifications to the well because that was
13 easier?

14 A No, but -- the first sentence here
15 says for people forced to remain on POETs.
16 So these are people who don't have the
17 opportunity to modify their well. These are
18 people for whom they are remaining on POETs.

19 Q Yes, and we're --

20 But you mentioned that wells
21 may be modified depending on the drilling,
22 but we don't know yet.

23 A Right. But the sentence says, for
24 residents forced to remain on POETs, so for

1 folks for whom that remedy doesn't work.

2 And I would be cautious
3 about -- again, within the field of
4 environmental economics, "remedy" typically
5 means remediating the physical environment,
6 not hooking people up to wells -- a municipal
7 system. That's a different topic.

8 But what I'm saying here is,
9 for folks who are forced to remain on POETs,
10 there may be a consideration of whether --
11 what would it cost to get them off POETs by
12 putting them on the municipal system. Just
13 spend the money you need to spend to get them
14 a pipe.

15 Q But you don't have, again, any
16 documentary evidence that suggests that
17 that's going to happen or is still under
18 consideration for these individuals, do you?

19 A Not as I sit here today, no, but it
20 would seem reasonable.

21 Q And you're still using that as a
22 measure of damages, is that correct, a
23 hypothetical municipal connection?

24 A I did not calculate damages based

1 on that cost.

2 Q You're saying these individuals'
3 damages should be measured as though they've
4 already been connected to the municipal water
5 system, even though they are not; is that
6 correct?

7 MS. JOSELSON: Objection.

8 A Yes. As I said in my first
9 deposition, and as I said in my first report,
10 that that, I believe, is the -- a lower-bound
11 estimate of loss, because the best
12 opportunity for them would be to be hooked up
13 to a municipal system, from a health
14 perspective and...

15 Q That's -- that's curious to me,
16 because I know you've said before that
17 there's a revealed preference that people
18 don't want to be on municipal water.

19 So why is it that for these
20 people that's the best option and for public
21 health?

22 A Because if you drill the well
23 deeper, you still could have intrusion of
24 contaminants. You could also draw

1 contaminants down through the well casing.

2 I mean, it's -- it's not a
3 permanent solution. It's a solution that
4 hopefully works. But from public health
5 perspective, whether they prefer municipal
6 water or not, it would be better to get those
7 folks on the municipal water.

8 Q Is that better than a POET?

9 A I would say so, because the POET --
10 operating a POET continuously, you don't know
11 from day to day whether it's operating
12 correctly.

13 They typically are pretty
14 effective, but you don't know for sure, so
15 you would -- it would be better to go off
16 POET.

17 Q Who's paying for the maintenance on
18 those POETs?

19 A I have no idea. It's not in my
20 damages model.

21 Q Page 23 of your rebuttal to
22 Dr. Mullin, in the second sentence of the
23 last paragraph, it says, "For example, as an
24 alternative measure of loss, we can estimate

1 the cost to connect these parties to one of
2 the two municipal systems. That is, while
3 the State of Vermont partial consent decree
4 may not require these connections, there's no
5 reason why such relief could not be granted
6 at the class level."

7 Did I read that correctly?

8 A You did.

9 Q Is that opinion stated in your
10 original reports?

11 A I don't believe so.

12 Q Did you attempt to estimate the
13 cost of connecting those individuals to the
14 municipal system?

15 A No. I'm just saying that's one
16 possible way to get to a remedy.

17 Q What information would that
18 require?

19 A I think you would have to have an
20 engineering cost estimate of running the line
21 out further and taking whatever measures are
22 needed to maintain water quality on those
23 lines.

24 Q So since you didn't attempt to

1 estimate the cost of connecting those
2 individuals to the municipal system, to do so
3 would require an engineering cost estimate.

4 Is it correct that there's no
5 reason why such relief could not be granted
6 at the class level?

7 MS. JOELSON: Objection.

8 A What I'm saying here is that the
9 State has had a set of considerations for
10 when they're going to allow individuals to
11 not be connected, in other words, where they
12 feel the cost is too much or technically it's
13 difficult.

14 There's no reason why a judge
15 couldn't simply rule as a matter of relief
16 that it has to be done.

17 Q But you're not a lawyer; is that
18 correct?

19 A No.

20 Q Okay.

21 A But there's no cost-benefit
22 standard there. I'm a policy analyst in
23 environmental economics. I know there's no
24 cost-benefit standard there, so...

1 Q And to determine the feasibility of
2 that relief would involve individual
3 increation into the circumstances of how to
4 make those municipal connections to each
5 class member; is that correct?

6 A Yes.

7 Q So wouldn't that constitute a
8 reason why such relief could not be granted
9 at the class level, understanding, of course,
10 that you're not a lawyer?

11 MS. JOSELSON: Object.

12 A I think, by definition, if a judge
13 were to order them to connect folks to the
14 system, the relief would be granted at the
15 class level.

16 Q Also on page 23, last sentence of
17 the preceding paragraph of the one we were
18 just looking at, it says, "However,
19 anonymously, he" -- that is Dr. Mullin --
20 "notes that at least one named plaintiff does
21 not trust the POET and thus purchases bottled
22 water, indicating that these parties are
23 experiencing an economic loss."

24 Did I read that correctly?

1 A You did.

2 Q Now, Dr. Mullin's report refers to
3 the plaintiff who did not trust the POET and
4 wants bottled water.

5 That concerns one of the named
6 plaintiffs who claims that she has unique
7 damages from the POET; is that correct?

8 MS. JOELSON: Object.

9 A I believe that's the case, yes.

10 Q Do you believe she's correct that
11 that constitutes damages for her?

12 MS. JOELSON: Object.

13 A I don't have an opinion on that.
14 I'm not calculating damages for purchasing of
15 bottled water.

16 Q Does your model address the unique
17 damages that she claims in this case?

18 A No.

19 Q Do you know how many other people
20 in the putative class might also claim those
21 damages?

22 MS. JOELSON: Object.

23 A It's not included in my damage
24 estimate.

1 Q How would we determine whether her
2 decision to keep purchasing bottled water
3 constitutes damages?

4 MS. JOSELSON: Object.

5 A You're asking me to hypothesize
6 about whether if I were asked by my client to
7 calculate damages to folks who were buying
8 bottled water how I would do that?

9 Q Yes, or whether it constitutes
10 damages at all.

11 MS. JOSELSON: Object.

12 A So from an economics perspective,
13 if she's changed her behavior to purchase
14 bottled water and that bottled water has some
15 costs associated with it beyond her previous
16 cost, that is a damage. It is a change.

17 I've chosen not to estimate
18 here. It's not in my model. I wasn't asked
19 to estimate that.

20 Q Would we have to evaluate at all
21 whether it's reasonable for her to make that
22 decision?

23 A Not from an economics perspective.
24 There may be issues of whether legally she

1 could get remedy, but it is a true damage;
2 but she may just not have a remedy if for
3 some reason the court doesn't think it's
4 reasonable. It's still a damage.

5 Q So --

6 A From an economist's perspective,
7 there's a difference between what the damages
8 are and what may be recoverable in
9 litigation, and I don't know the latter.

10 Q So if there were a class member
11 that said, well, because of the defendant's
12 conduct in this case -- not this case, but
13 any case -- I gave my life savings to a
14 Nigerian prince who emailed me about a
15 check --

16 A You got that same email I did,
17 apparently.

18 Q Yes. Okay.

19 -- can that plaintiff claim
20 that the expenditure of their life savings to
21 that Nigerian prince as damages?

22 MS. JOSELSON: I think it's a
23 completely inappropriate question.

24 He's already said, and you know,

1 he's not a lawyer. He's not going to testify to
2 what are legally recoverable damages in a purely
3 hypothetical case.

4 It's a silly question, and he's
5 already answered it in other forms as best he
6 can.

7 MR. WILSON: I'm asking him --

8 Q As an economist, does that
9 constitute damages?

10 A I would say as a -- as a consulting
11 economist, I would advise my client that that
12 category of damage may be difficult to
13 recover, as opposed to someone making the
14 prudent decision in their minds to protect
15 their health by consuming bottled water as
16 opposed to public water, or what they view as
17 a prudent decision.

18 Q What disciplines, if not economics,
19 would be relevant to determine whether an
20 individual's behavior in response to a given
21 event constitutes damages?

22 MS. JOELSON: Objection.

23 A Again, the economist can estimate
24 the damage, which is the cost of the change

1 of behavior that would have taken place
2 otherwise. Economists would do that.

3 I would assume a lawyer would
4 determine whether that's recoverable under
5 the law.

6 So, for example, if I'm
7 driving to work in the morning and someone in
8 front me has an accident -- and I'm not
9 touched; I'm not involved in the accident at
10 all -- and I'm late to work, I incur damage.
11 There's no remedy under Massachusetts law
12 that lets me sue the parties who were
13 involved in the accident, but it's a real
14 damage.

15 Q And so it might be relevant in this
16 case to look at whether the individual's
17 fears about the water that comes out of the
18 POET is safe -- whether those fears are
19 reasonable might be relevant to determining
20 whether this constitutes damages; is that
21 correct?

22 MS. JOSELSON: Same objection.
23 Asked and answered. You're asking him for a
24 legal conclusion. He's already given his

1 expert opinion.

2 A And I would expect -- you know, I
3 would probably rely on my folks who do
4 epidemiological calculations to ask whether
5 that's a prudent behavior, given the
6 possibility the POET doesn't work.

7 But I wouldn't question the
8 behavior in calculating losses, but I'm also
9 not calculating this category of loss.
10 That's entirely hypothetical.

11 MR. WILSON: We can break for
12 lunch.

13 MS. JOSELSON: Okay.

14 THE VIDEOGRAPHER: The time is
15 12:08 p.m. We are going off the record.

16 (Lunch recess.)

17 THE VIDEOGRAPHER: We are back
18 on the record. The time is 1:05 p.m.

19 BY MR. WILSON:

20 Q Mr. Unsworth, just to follow up on
21 a question I asked earlier, I believe you
22 said that you're not aware of who is paying
23 the cost to maintain the POETs for the
24 individuals who are slated to remain on them;

1 is that correct?

2 A Yes. Sitting here today, I'm not
3 sure how that compensation is being provided.

4 Q Does it matter to your analysis
5 whether someone else is paying those costs?

6 A No. I don't include the POETs in
7 my cost estimate, so it wouldn't matter to my
8 analysis. They're neither there nor absent.

9 Q Let's take a look at page 9 of your
10 rebuttal to Dr. Mullin.

11 In the second sentence of the
12 second full paragraph, it says, "While
13 Bennington and North Bennington have
14 municipal systems, there's been no observable
15 trend of residents shifting to those
16 municipal systems. Dr. Mullin cites no
17 evidence of such a trend. As I noted in my
18 initial reports, observed behavior of
19 residents of Bennington and North Bennington
20 over the past decades is a clear indicator
21 there was little demand by residents with
22 existing groundwater wells to connect to the
23 municipal systems absent PFOA contamination."

24 Did I read that correctly?

1 A You did.

2 Q Did you attempt to assess whether
3 the cost of connecting to municipal water
4 systems affected whether residents who did
5 not have access sought to obtain it?

6 A We talked about that at length in
7 my initial deposition, and I stated that this
8 is -- these are substantial savings that
9 Dr. Mullin is asserting; and therefore, this
10 savings existed. And if the revenues
11 existed, what I've said in this report, I
12 would expect there would have been pressure
13 to come onto the system, and there wasn't.

14 Q I'm not sure if I understand your
15 answer or if it addressed my question.

16 My question is, did you
17 attempt to evaluate whether the cost that a
18 resident would have to pay to connect to
19 municipal water if access wasn't already
20 provided affected whether they had sought to
21 obtain a connection to municipal water prior
22 to the discovery of PFOA?

23 MS. JOSELSON: Again, I think
24 it's been a subject that was asked/explored

1 during the first depo, but you can answer.

2 A Yes. So the question you're asking
3 is whether the cost of hookup would have
4 prevented people from taking advantage of
5 being on the municipal water even if they
6 wanted it.

7 And as Dr. Mullin points out,
8 there are some number of homes that are
9 actually on streets with connections who have
10 chosen not to. There are homes on streets
11 that are on nearby connections.

12 We don't -- as I noted in my
13 original report, and as I noted in
14 deposition, there's only a handful of folks
15 who have joined these systems. So I'm not
16 seeing any elasticity at all for demand. I'm
17 not seeing much interest in joining the
18 systems.

19 Presumably, the cost of hookup
20 might vary from household to household, but
21 given the asserted substantial savings and
22 the benefit to the community, you would have
23 thought there would have been that behavior,
24 and we're not seeing it.

1 Q So the cost, though, of hooking up
2 to the municipal system is relevant to
3 whether a resident would have wanted it; is
4 that correct?

5 MS. JOSELSON: Objection.
6 Again, explored.

7 A What I'm comparing is a but-for
8 condition. These homes had a pipe that came
9 into the house from their well, and it went
10 into a pressure tank and was distributed
11 within the house, or they have a pipe coming
12 in from the municipal system, and we're
13 comparing those two -- those two conditions.

14 Q And I'm asking whether the cost of
15 making that hookup prior to discovery of PFOA
16 is relevant to whether a resident would have
17 wanted that hookup.

18 A I have no idea whether that would
19 have -- would have gone into their
20 considerations.

21 Q Did you attempt to determine the
22 amount of those costs?

23 A No.

24 Q If it was going to cost \$20,000 per

1 household on average, do you think that would
2 be relevant to whether residents were
3 interested in making a connection to the
4 municipal water system?

5 MS. JOELSON: Objection.

6 A I think what you would look at is
7 whether there's any action there at all. You
8 don't look at the most expensive home and ask
9 why they didn't switch. You would ask
10 whether -- for homes that are directly
11 proximate to the system, why didn't they
12 switch.

13 Q I'm asking, though, if you had
14 information that showed you that it would
15 cost \$20,000 to hook up a given home to the
16 municipal water system. Is that relevant to
17 your analysis of whether people preferred
18 municipal water to well water?

19 MS. JOELSON: Asked and
20 answered.

21 A Again, you're asking the same
22 question over again.

23 But I'm saying that comparing
24 the but-for condition, that is not my but-for

1 condition, and I also don't see any demand
2 for the system, no matter the cost.

3 Q I'm -- I know you've pointed out
4 that I'm asking the question over again, but
5 I'm asking over again because you haven't
6 answered it.

7 I'm asking whether that cost
8 is relevant. Would a \$20,000 cost be
9 relevant to this issue?

10 A No --

11 MS. JOSELSON: Objection.

12 A -- I'm not including that in my
13 analysis.

14 Q Okay.

15 Would an \$80,000 cost per
16 household to connect to municipal water be
17 relevant to the incentives at issue here?

18 MS. JOSELSON: Objection.

19 A So would I think that that's
20 relevant to whether people would have chosen
21 to be on the municipal system or not?

22 Q Yes.

23 A It depends on what the policy would
24 have been on hooking people up, whether the

1 municipality would charge them or whether it
2 would be built into their rates.

3 Q So if 80,000 -- if municipal -- if
4 class members would have been charged
5 personally \$80,000 to obtain hookup to a
6 municipal water system, do you think that
7 that would be relevant to their decision of
8 whether they preferred to stay on well water
9 or get municipal water?

10 MS. JOSELSON: Are you asking
11 giving contamination or with no
12 contamination?

13 MR. WILSON: Thanks for the
14 clarification.

15 BY MR. WILSON:

16 Q Assume before there's been any
17 contamination. In the abstract, if it -- let
18 me withdraw the question.

19 Assume before the discovery of
20 PFOA whether -- if the municipal water hookup
21 cost \$80,000, would that be relevant to an
22 individual class member's decision of whether
23 they preferred to remain on well water or
24 seek a hookup?

1 A I don't know what the --

2 MS. JOSELSON: Same
3 objections.

4 A I don't know what -- we talked
5 about this at the original deposition, and I
6 do not know what individual homeowners'
7 preferences are.

8 Q Sir --

9 A What I look at is the revealed
10 behavior observed in the market.

11 Q So the revealed behavior shows, at
12 least, that at whatever the cost was to
13 individual class members, there is
14 noninterest in these individuals joining the
15 municipal system; is that correct?

16 A That seemed to be the case.

17 Q But the cost would be relevant to
18 that question, wouldn't it?

19 A I don't know who it would be borne
20 by, so I don't know if it's relevant to that
21 question.

22 Q If it was borne by the plaintiff,
23 would it be relevant?

24 MS. JOSELSON: Object.

1 A It could be relevant to their
2 decision of whether to join, but I didn't see
3 anybody looking to join.

4 Q But you also didn't look at what
5 the cost was, did you?

6 MS. JOELSON: Objection.

7 A I did not look at individual cost
8 to connect, no.

9 But that also was not covered
10 in Dr. Mullin's report, I'll note on the
11 record. It was covered in my original
12 deposition.

13 Q You also say on page 10 at the top,
14 "This conclusion ignores multiple other
15 factors that determine the use of public
16 water supplies: For example, historical
17 connection to the municipal system,
18 preferences of individual buyers, lot
19 characteristics that preclude a well,
20 availability of properties with desired
21 characteristics. As such, the fact that many
22 of the residents choose to live in residences
23 served by municipal water does not negate the
24 potential for financial losses to all

1 residents, including residents who selected
2 residences with private wells, nor does it
3 imply anything about the preferences of these
4 residents for municipal water."

5 Other than mispronouncing
6 "chose" and "choose," did I read that
7 correctly?

8 A You did.

9 Q So you acknowledge that there are
10 multiple other factors that determine the use
11 of public water supplies; is that correct?

12 A What I'm saying is, there's
13 multiple factors to determine whether a
14 property in Bennington or North Bennington
15 has a public water supply, and that's the
16 historical fact of -- of where those homes
17 were when those systems were installed.

18 The preferences of individual
19 buyers matter. Some people don't want a home
20 with a well. Some people want a home with a
21 well, and so those are individual
22 preferences.

23 And then there are rules on
24 your lot size and characteristics that limit

1 whether you can have a well. And then you
2 might not be able to find the property you
3 want. If you really want a large lot, you
4 may not find one that's on the municipal
5 system.

6 Q So to evaluate why someone does or
7 does not choose to connect to the municipal
8 water system, we need to evaluate the factors
9 that you identify in this paragraph of your
10 report; is that correct?

11 MS. JOSELSON: Objection.

12 A You'll have to repeat that.

13 Q In order to evaluate why someone
14 does or does not choose to connect and use
15 the municipal water supply, we should
16 evaluate the factors that you identify here,
17 including historical connection to the
18 municipal system, preferences of individual
19 buyers, lot characteristics that preclude a
20 well, and availability of properties with
21 desired characteristics; is that correct?

22 MS. JOSELSON: Same objection.

23 A I guess I don't understand the
24 question. This is in response to the --

1 Dr. Mullin's statement that everyone who
2 had -- most people who had historical access
3 to the water system were on the water system,
4 and I didn't think that proved his point that
5 folks preferred to be on the municipal water
6 system.

7 Q And so you've identified a number
8 of other factors that are relevant; is that
9 correct?

10 A That's correct.

11 Q And so those factors should be
12 considered; is that correct?

13 MS. JOELSON: Objection.

14 A I don't -- I don't have to consider
15 them. The individuals who bought the homes
16 with wells considered those factors
17 themselves.

18 I don't -- I don't need to
19 know now why they made those decisions.

20 Q What methodology allows you to
21 identify a factor as relevant to your
22 analysis and then not consider it?

23 MS. JOELSON: Objection.

24 A I didn't say that. What I said

1 was, Dr. Mullin didn't consider these factors
2 in his conclusion of his -- the point he was
3 trying to make. It wasn't the point I was
4 trying to make. It's the point he was trying
5 to make.

6 I don't think he understood
7 the historical -- the history of municipal
8 water connections in Bennington and why they
9 are where they are.

10 Q Let's turn to page 16 of your
11 rebuttal to Dr. Mullin. I'm sorry, page 24.

12 So in the last sentence of the
13 paragraph that begins with "in short," it
14 says, "The analysis I conducted, conclusions
15 I've reached with respect to replacement of
16 the services previously provided by
17 groundwater is consistent with this cause of
18 action and consistent with the well-accepted
19 practice in the field of environmental damage
20 assessment," citing Lane, et al., 2009.

21 A Yes.

22 Q Did I read that correctly?

23 A You did.

24 MR. WILSON: I'd like to mark

1 this for identification as whatever our next
2 exhibit number is.

3 MS. JOSELSON: 7.

4 (Exhibit 7 marked for
5 identification.)

6 BY MR. WILSON:

7 Q Mr. Unsworth, the court reporter
8 has handed you what's been marked as
9 Defendant's Exhibit 7 to this deposition.

10 Can you tell me what this is?

11 A It's the article I cite in that --
12 at the end of that paragraph.

13 Q So under the introduction on the
14 first page of this article, it says in the
15 second sentence, "Trustees of natural
16 resources, including state and federal
17 agencies and Native American tribes, need to
18 determine the amount of restoration required
19 to compensate the public for injuries to
20 natural resources caused by releases of
21 hazardous substances. To accomplish this
22 goal" --

23 I'm sorry. Pardon me. I'm
24 going to withdraw that question.

1 Let's start with the abstract
2 instead. In the second sentence of the
3 abstract, it says, "According to the US
4 Department of Interior regulations for NRDA,
5 Trustees of natural resources develop
6 alternatives that will 'restore,
7 rehabilitate, replace, and/or acquire the
8 equivalent of the injured resources.'
9 Identification, scaling, and evaluation of
10 groundwater restoration projects has proven
11 challenging. This paper describes potential
12 categories of groundwater restoration
13 projects, including: 1) Generating clean
14 water, 2) Conserving water, 3) Storing water
15 for times of scarcity, and 4) Accessing new
16 sources of water that were previously
17 inaccessible or unusable."

18 Did I read that correctly?

19 A You did.

20 Q So this article is describing a
21 method of assessing natural resource damages
22 for natural resource trustees; is that
23 correct?

24 A Well, that's the context that

1 they're describing here.

2 Q Is there a trustee in this case?

3 A I don't think there has to be one
4 for this to be relevant.

5 Q I'm asking whether there's a
6 trustee in this case.

7 A Well, the State of Vermont is a
8 trustee for natural resources, including
9 groundwater, so there is a trustee. I don't
10 know if they've chosen to bring a claim.

11 Q Are you aware of whether the State
12 of Vermont is a plaintiff in this action?

13 A I just said, I don't know whether
14 they've chosen to bring a claim.

15 Q There isn't any literature cited in
16 your report that supports the application of
17 replacement cost valuations for natural
18 resource trustees to private plaintiffs
19 alleging a loss of use of groundwater, is
20 there?

21 MS. JOSELSON: I'm going to
22 object. This is all subject to his first
23 deposition.

24 A Yes, that statement, actually, is

1 incorrect.

2 So trustees act in the public
3 good, so they're acting to restore natural
4 resources so the public has access to those
5 resources, so I wouldn't agree with your
6 characterization.

7 Q I'm asking whether your report
8 cites any articles that say that the method
9 of analysis described in the Lane article for
10 natural resource trustees is also applicable
11 to private plaintiffs alleging a loss of use
12 of groundwater.

13 MS. JOELSON: Objection.

14 Q Does your report cite any such
15 articles?

16 A It doesn't, but that's a basic
17 premise of environmental economics. It
18 doesn't require this paper to state it.

19 The context of this paper was
20 a CERCLA paper, but that doesn't affect
21 whether or not the method is applicable in
22 other harms caused to groundwater, and how
23 you get compensation to the public is not
24 relevant to the method.

1 Q Are you able to cite to me for this
2 allegedly widely used method any
3 peer-reviewed publications that describe its
4 use in the context of private plaintiffs
5 alleging a loss of use of groundwater?

6 A So the idea of replacing a service
7 provided by groundwater?

8 Q Under the framework that's outlined
9 here in the Lane article that you cite --

10 A The Lane article is describing a
11 method. It's not -- and an application.
12 It's not describing the law.

13 Q It's important for you to just wait
14 until I'm finished with my questions before
15 you start answering.

16 Are you aware of any articles
17 that describe the application of the Lane
18 method to claims by private plaintiffs
19 alleging a loss of use of groundwater?

20 A I'm not aware of any articles, but
21 they're restoring the loss of use to the
22 public, so it's to the same individuals. It
23 wouldn't matter what the cause of action is.

24 Q Is the public the plaintiff in this

1 case?

2 A Members of the public are
3 plaintiffs in this case.

4 Q Oh, members of the public?

5 A Yes.

6 Q Okay.

7 A Was that a question or...

8 Q So damages are typically modeled on
9 but-for conditions; is that correct?

10 A That's one common damage model,
11 yes.

12 Q And you stated in your rebuttal
13 report that your replacement cost damages are
14 intended to be above the but-for condition
15 and attributes of the system as a means to
16 provide a partial offset for the lost
17 services associated with groundwater
18 contamination.

19 Is that a correct
20 characterization of your report?

21 A Well, there -- there -- in other
22 words, these are actions that wouldn't have
23 been taken in the absence of contamination.
24 They would not have been necessary in the

1 absence of contamination.

2 Q Let's just go to the report. Take
3 a look at page 24 of the rebuttal.

4 The paragraph that begins "In
5 the absence" --

6 A Yes.

7 Q -- the second sentence says, "These
8 actions are intended to be above the but-for
9 condition and attributes of the system as a
10 means to provide a partial offset for the
11 lost services associated with groundwater
12 contamination."

13 Did I read that correctly?

14 A You did.

15 Q How do costs that are above the
16 but-for condition of the system constitute
17 damages?

18 A So the but-for, the contamination,
19 we would have a situation with no
20 contamination of groundwater, and these
21 projects wouldn't be necessary.

22 We then have the
23 contamination, and now some action is
24 necessary to restore those services. So, by

1 definition, these are not things that would
2 have occurred in the but-for condition.

3 Q But if they are above the but-for
4 condition, they're not making things whole,
5 right? They're going beyond that?

6 MS. JOELSON: Objection.

7 A No, you're misunderstanding that.

8 Q In what regard?

9 A So the but-for contaminant
10 condition, there is no contamination.

11 So if we were to do these
12 projects then, it would be doing things that
13 aren't necessary, given the absence of
14 contamination.

15 So now you -- now with the
16 contamination, you've now lowered the
17 quality, and you need to raise it back up.

18 So it's a -- it's not what you
19 said. It's the opposite.

20 Q But there's nothing that said in
21 any of the information that you received from
22 the town that these projects were necessary
23 because of PFOA; is that correct?

24 A But the -- we went through a

1 process to identify projects that would
2 improve water security and reliability and
3 improve water quality in an attempt to offset
4 the effect that the groundwater is no longer
5 available there.

6 MS. JOSELSON: And I'm just
7 going to note, this was thoroughly explored
8 in the first depo.

9 MR. WILSON: And I'll just
10 note for the afternoon session, the same
11 position stands, that since these matters are
12 again stated in Mr. Unsworth's rebuttal
13 report, we're entitled to ask about them
14 again.

15 MS. JOSELSON: You're entitled
16 to ask about them to understand his rebuttal
17 opinions, not to reexamine him on opinions
18 expressed in his merits and cert report.

19 MR. WILSON: If they're stated
20 in his rebuttal report, presumably they
21 constitute rebuttal opinions, presumably it
22 is therefore proper for me to ask questions
23 about them.

24 MS. JOSELSON: They're stated

1 in his rebuttal report because they address
2 Dr. Mullin -- Mr. Mullin's opinions. You can
3 ask about it in that context, not reexamine
4 him on matters you've already examined him on
5 before.

6 MR. WILSON: If the problem is
7 that these matters were raised previously,
8 then the problem is in the fact that he's
9 rehashing opinions in his rebuttal report
10 that he previously expressed in the merits
11 phase.

12 MS. JOELSON: I disagree.

13 MR. WILSON: At a minimum,
14 since he's -- since we don't know how
15 Judge Crawford will rule on a motion to
16 strike, we need to be able to ask questions
17 about the text of his -- set forth in his
18 rebuttal report.

19 Presumably he believes those
20 constitute rebuttal opinions, and I'm
21 entitled to ask about them.

22 MS. JOELSON: I disagree.

23 BY MR. WILSON:

24 Q So, in fact, the projects that you

1 identify were part of a wish list that was
2 prepared by the town before PFOA was ever
3 discovered; is that correct?

4 MS. JOSELSON: That's almost
5 verbatim a question you asked him in his
6 first deposition, so I'll continue my
7 objection.

8 MR. WILSON: And it's relevant
9 to impeachment with regard to the testimony
10 that Mr. Unsworth just gave.

11 MS. JOSELSON: Not unless you
12 connect it to Dr. Mullin's opinions.

13 BY MR. WILSON:

14 Q So, in fact, the projects that were
15 proposed in your report here were part of a
16 wish list that was identified by the Town of
17 Bennington prior to discovery of PFOA; is
18 that correct?

19 A I don't know -- the characterizing
20 it as a wish list, I don't know what that
21 means. When you start the question with "in
22 fact," I'm going to start by answering "no."

23 But the projects that we
24 identified were things that could be done to

1 improve the reliability and quality of the
2 systems. They have made the decision not to
3 invest in those items because they didn't see
4 a need to at that time. Then the situation
5 changed.

6 The fact that they were on a
7 previous list just means we were doing
8 reasonable due diligence, and so were they,
9 about thinking about ways to improve their
10 system.

11 So I don't think the fact that
12 they were already on a list has really much
13 to do with anything, other than that it's a
14 well-managed system.

15 Q What information did you receive
16 from the town that supports your position
17 that these projects were not necessary before
18 the discovery of PFOA but became necessary
19 after it?

20 MS. JOSELSON: Object, both to
21 the form and to the repetitiveness.

22 A So my knowledge of being
23 unnecessary is they didn't invest in them, so
24 they didn't make those investments. They

1 didn't see the need for them.

2 Why they are reasonable now is
3 that they are the best options available to
4 improve the quality and reliable quantity of
5 water within the system.

6 It's a reasonable way to
7 provide all residents in the community an
8 offset for the fact that they can't use
9 groundwater now.

10 Q How do you quantify whether repairs
11 and enhancements for matters unrelated to
12 PFOA constitute a reasonable offset for
13 alleged harms that are related to PFOA?

14 MS. JOSELSON: Same double
15 objection.

16 A I'm not sure the alleged harms
17 makes sense. I'm going to disagree with the
18 alleged harms. The groundwater is
19 contaminated with PFOA, so the harm is there
20 and people have to switch water services.

21 So there will be an area for
22 which people are not going to be able to use
23 groundwater for residential purposes. So the
24 harm is there. It's not alleged. The --

1 Go back to your original
2 question.

3 MR. WILSON: So I'll just note
4 your objection to "alleged," and I'll repeat
5 the question.

6 BY MR. WILSON:

7 Q How do you quantify whether repairs
8 and enhancements for matters unrelated to
9 PFOA constitute a reasonable offset for
10 alleged harms that are related to PFOA?

11 MS. JOELSON: Same
12 objections.

13 A So as I discussed in my first
14 report, it appears that the cost of actually
15 remediating the PFOA in the ground is quite
16 expensive. The ability to go in and remove
17 it from soils and remove from groundwater
18 would be quite expensive.

19 As an alternative, we're
20 trying to provide a reasonable means to
21 assure the quality of the surface water
22 system that exists up on Ball Brook, so that
23 it provides a reliable and predictable flow
24 of clean water in the absence of those

1 other -- of those other sources.

2 So that's what those projects
3 are intended to do. So it was done through
4 consultation with the town, with their
5 engineer, as to what sorts of things could
6 offset what's been lost here.

7 Q So my question is methodological.

8 What are the standards and
9 criteria for that inquiry in the abstract?

10 How do you determine whether
11 something constitutes an appropriate or
12 reasonable offset?

13 MS. JOELSON: Again,
14 thoroughly explored in the first depo.

15 A Is it -- is it cost-effective, so
16 is it -- are there cheaper ways to achieve
17 the same objective? Are they engineering
18 reliable -- is it possible to engineer them?
19 So, in other words, can it be actually
20 accomplished, or is it something that's
21 difficult to do?

22 Was it previously considered,
23 which would mean that it was considered
24 reasonable before and not selected.

1 So those are the kind of
2 factors. It's described in the report --
3 it's described in my first deposition -- that
4 determine whether those projects are
5 reasonable, given the -- given the harm.

6 Q And I think you say that it
7 constitutes a partial offset of the alleged
8 harm attributable to PFOA; is that correct?

9 A Yes.

10 Q How do you calculate that it is a
11 partial offset rather than a complete offset
12 or in excess of the harm caused?

13 MS. JOELSON: Again, same
14 objection.

15 A I say a "partial" offset because
16 there are other -- as we've already
17 discussed, there's added cost damages here.
18 As I understand it, there may be medical
19 monitoring costs, so it doesn't address
20 those -- those components of the claim. It's
21 a partial offset.

22 Q Is there any -- how do you quantify
23 the -- economically, since you've described
24 your profession as seeking objective measures

1 of things, how do you quantify economically
2 the loss of the resources and compare that to
3 the offset provided by these infrastructure
4 projects and say that they're comparable?

5 MS. JOSELSON: Again,
6 thoroughly explored, first dep.

7 A The -- what we're trying to do is
8 say, you know, for example, we know that
9 there isn't a quantity problem in the
10 capacity of these systems, so we're not going
11 to accomplish projects that address that
12 issue. It's not an issue given the PFOA.

13 What is an issue given the
14 PFOA is the absence of a second source of
15 water, which is this groundwater that can be
16 accessed from residences. And so that's --

17 As an economist, what I look
18 to is, are there things that people do that
19 offset those -- and then within my report, I
20 talk about whether the cost per household
21 appears reasonable in light of the
22 literature.

23 Q And I'm asking how you quantify
24 that one offsets the other, that the loss is

1 comparable to what it's replaced with.

2 MS. JOSELSON: Object to the
3 form. Asked and answered.

4 A Yes, I think it's my expert opinion
5 that that's the case, that it's addressed in
6 the characteristics and the scale of the
7 problem.

8 Q Did you consider whether the
9 amenity of a connection to municipal water
10 would, in turn, partially offset the loss of
11 use of groundwater, such that replacement
12 cost damages would be unwarranted?

13 MS. JOSELSON: Object. Same
14 two objections.

15 A So -- yeah, I'm not sure what this
16 has to do with Mullin's report which
17 addresses a different topic on this issue.

18 But the -- until those
19 individuals are hooked to the municipal
20 system, they are just --

21 Well, let me say it this way:
22 Once those individuals are hooked to the
23 municipal system, they're just like everyone
24 else in the community. They live in a

1 community with contaminated groundwater.
2 They do have municipal water that's available
3 to them, which is good, because their health
4 is protected, but -- but they are just like
5 the rest of the community.

6 This category of loss is
7 intended to address beyond the losses that
8 occur to members of the public who are on the
9 municipal system, who do not have a well, but
10 who live in a community with contaminated
11 groundwater.

12 Q Did you consider in your opinion
13 whether the connection to municipal water
14 would offset any need for replacement cost
15 damages?

16 A No, I just said I didn't. That's
17 not -- I didn't believe it did. Yes, I did
18 consider it, and I didn't believe it did.

19 Q Where in your report does it say
20 that you considered it?

21 A I just said it now. It's -- I said
22 in my report that -- that once those
23 individuals are on the system, they're just
24 like everyone else.

1 Q So on page 26 of your report,
2 second to the last sentence of the page, it
3 says, "In this case, the town would simply be
4 an agent to implement the projects, not a
5 plaintiff."

6 Did I read that correctly?

7 A You did.

8 Q Would the town also be a
9 beneficiary of the projects?

10 A They would be given the money
11 required to accomplish these projects, so I
12 don't know why the town itself would be a
13 beneficiary, but the cost would be offset by
14 what they're given.

15 Q So you're proposing to give the
16 money to the town?

17 A I'm proposing to use the towns as
18 the agent, just like you hire a contractor to
19 do work. The contractor wouldn't benefit.
20 They would get paid to do work, and they
21 would do it, and they would have certain
22 costs associated with it.

23 Q And the town would be completing
24 these projects on its property rather than on

1 the property of the putative class members;
2 is that correct?

3 A In some cases, they're -- part of
4 the cost here is the cost of making offers to
5 landowners who are upgrading from the intake,
6 and that would obviously be accomplished on
7 their properties once they -- once they
8 acquired those properties.

9 Q So if the putative class were
10 awarded the amount of damages you say they're
11 entitled to, if that amount were allocated
12 among all the putative class members, as
13 you've proposed, how do we make sure that the
14 money that we allocate to those class members
15 gets used to spend on these infrastructure
16 projects for the Town of Bennington?

17 MS. JOSELSON: Same two
18 objections. Thoroughly explored last depo,
19 and I object to the form.

20 A So you're dealing with two
21 different issues. So one is, how are we
22 going to compensate folks for their added
23 cost and the effects on their property values
24 of those added costs; and the second is, how

1 do we compensate the public for the injury of
2 the groundwater resource, in other words, for
3 the presence of contaminants.

4 So these are two different
5 mechanisms. They're not -- they're not the
6 same numbers. They're two different
7 mechanisms, and they're two different groups
8 of people.

9 Q So your replacement cost damages
10 are actually not the damages of the class;
11 they're the damages of the public.

12 Is that correct?

13 MS. JOELSON: Objection.

14 A The damages that the public has
15 suffered who -- as a result of the presence
16 of contaminants in their community and the
17 loss of that drinking water source, of which
18 the members of the class are members of the
19 public.

20 Q Let's take a look at page 18 of
21 your rebuttal of Dr. Mullin. Let's take a
22 look at the second to the last sentence of
23 the paragraph at the top that carries over
24 from the previous page.

1 It says, "As such, any changes
2 in the cost of owning a property will be
3 expressed through a change in the price of
4 the property. Since most buyers finance home
5 purchases with mortgage debt, the proper rate
6 to use to calculate net present value damage
7 in this matter is the after-tax mortgage
8 interest rate."

9 Did I read that correctly?

10 A You did.

11 Q And let's take a look also at your
12 deposition, page 94. I'm sorry, 96.

13 And I'm going to jump into 96,
14 even though there's a little bit of context
15 on 94. Feel free if you need to, to
16 familiarize yourself what's going on, but I
17 just don't want to have to read you two
18 pages.

19 So beginning with the answer
20 on page 96, you say:

21 "I think that oversimplifies
22 my comment. My statement was that I believe
23 firmly that the increased cost of owning a
24 home that has municipal water -- in some of

1 these cases. For some of the North
2 Bennington homes, it's actually less
3 expensive to be on municipal water, and I
4 show that. But for the homeowners who
5 currently have wells, the majority of them,
6 they will see an increased cost of operating
7 their home. And I firmly believe that will
8 be capitalized into their home value,
9 consistent with appraisal science and
10 consistent with economics."

11 Did I read that correctly?

12 A You did.

13 Q So is it your opinion that the
14 diminution in the value that's alleged by the
15 plaintiffs here represents a capitalization
16 of the additional expected costs of the homes
17 being switched to municipal water?

18 MS. JOELSON: Object. The
19 same two objections.

20 A No, that would not be my
21 understanding. I know that the plaintiffs
22 have expressed what they believe to be their
23 diminution in home value. I think that that
24 incorporates all of their concerns about

1 living above a plume of contaminants and
2 owning a home with a well that might have had
3 to be closed.

4 So I wouldn't -- I wouldn't
5 say they're the same thing, no.

6 Q So -- but your opinion on the
7 capitalization of the costs of municipal
8 water into the home value, that would be at
9 least a part of the diminution in value
10 alleged by the plaintiffs; is that correct?

11 A To the extent that that was on the
12 mind of the plaintiffs when they made their
13 estimate, which I don't know, I wasn't in
14 their heads, and there's only, you know,
15 several of them who have made that -- those
16 estimates.

17 And, of course, it would only
18 apply to people for whom they had a well,
19 right? Because folks without wells might
20 have asserted a diminution without any cost
21 increase.

22 Q And you believe that your analysis
23 in this regard is reliable because you say
24 it's based on objective facts and data; is

1 that correct?

2 A Yes.

3 Q Would the plaintiffs' opinions of
4 their own diminution in value be less
5 reliable if they didn't consider the factors
6 you're considering here?

7 MS. JOSELSON: Same two
8 objections.

9 A It would still be reliable. They
10 just wouldn't incorporate this category of
11 loss. I don't know what was in their minds
12 when they made their estimates, so...

13 Q And this answer we looked at on
14 page 96 of your deposition, you also -- you
15 look at appraisal science?

16 A Mm-hmm.

17 Q Can appraisal science inform or
18 refine your opinion about the amount of any
19 reduction in value here?

20 A Yeah, I think there are methods --
21 I have a whole rebuttal report that deals
22 with this, but I think there are methods that
23 can be applied by appraisers as well as by
24 economists that can inform the question of

1 whether there's been a diminution of property
2 value or whether you would expect one to
3 occur.

4 Q So let's take a look at something
5 we talked about a little earlier.

6 In your merits report,
7 page 14 --

8 A Are we done with this?

9 MS. JOSELSON: For now, I
10 guess.

11 Merits report is Exhibit 2.

12 A So you're talking the December --
13 December report?

14 Q Yes.

15 A Okay.

16 Q So when we started the deposition
17 this morning, we were talking about your
18 opinion on economists versus appraisers, and
19 you said -- in a section of your deposition
20 testimony, you said that the economists do a
21 better job valuing homes than appraisers do,
22 and it says in my report that it's around
23 seven percent.

24 So this is the section of your

1 report that is the seven percent number.
2 It's Footnote 21 on page 14, and it says,
3 "For context, the census reports the average
4 home value in Bennington to be \$209,851. As
5 such, this cost reflects about seven percent
6 of home value."

7 And in the text of Footnote
8 21, you said that it's an average of \$9,167
9 of present value cost.

10 A Mm-hmm.

11 Q So this is a very -- a long way of
12 getting around to a very simple question. My
13 math suggests that 9,167 over 209,851 is not
14 seven percent. It's more like four percent.

15 And I'm just wondering, is
16 there something I'm missing in the
17 calculations that got you to seven percent
18 there?

19 A I'd have to go back and look at how
20 I did the calculation. I think I might have
21 been using the average of the two numbers.

22 MS. JOELSON: And again, I'll
23 just indicate that this is --

24 A Your math --

1 MS. JOSELSON: -- part of
2 prior --

3 A Your math is correct.

4 Q Okay.

5 A I don't know. I'd have to go back
6 and look at how we calculated the number.

7 Q Okay.

8 So whether it's seven percent
9 or four percent, we'd have to determine, but
10 it looks like you're saying in the text of
11 your report that it's an average of 9,167, so
12 it would be that number over 209,000; is that
13 correct?

14 MS. JOSELSON: Again, prior
15 report.

16 A You would have to -- you'd have to
17 repeat that. I'm not follow -- I'm not --

18 Q Okay.

19 So in the text --

20 MR. WILSON: Before I get to
21 this, just to address counsel's objection, I
22 believe that this is important since, at the
23 time that Mr. Unsworth served his merits
24 report, he hadn't offered any formal opinion

1 addressing diminution in value.

2 Now that he served a rebuttal
3 report that addresses diminution in value,
4 responding to the reports of Mr. Phillips and
5 Dr. Jackson, we believe it's important to
6 address those new opinions in the context
7 with and for consistency with the opinions
8 expressed relating to diminution of value in
9 his original report.

10 So that's the proffer of
11 relevance, just for the record.

12 MS. JOSELSON: Okay. Thank
13 you. I disagree. I think you're limited to
14 his rebuttal reports, but go on.

15 BY MR. WILSON:

16 Q So --

17 A The separate issue is whether --
18 how we calculated the seven percent or
19 whether there's a typo there.

20 Q Yeah.

21 So does it look like since you
22 said that the average is 9,167, that it
23 should be that that average value over the
24 average value for homes in Bennington of

1 209,000?

2 A I'd want to go back and look at it,
3 because I know when we drafted this, we also
4 talked about using median value, so it's
5 possible that the average value fell in here,
6 but the median is lower.

7 I'm not sure. I'd have to go
8 back and look at it before I clarified that.

9 (Counsel conferred.)

10 BY MR. WILSON:

11 Q I'm just going to put a pin on what
12 we were talking about there. We'll come back
13 to it in a minute once he's back with the
14 printouts. Unfortunately, we did have issues
15 at the hotel with the printer.

16 A They threw you out?

17 Q So let's turn to page 1 of your
18 rebuttal. We're actually going to move on
19 now to the fun one on property.

20 And at the bottom of page 1 of
21 that rebuttal, the very last sentence that
22 crosses over to the next page, it says,
23 "However, the plaintiffs in this case are not
24 in fact seeking class certification for

1 purposes of establishing monetary damages
2 associated with property value diminution."

3 Did I read that correctly?

4 A You did.

5 Q Can you tell me what the source of
6 that statement is in your report?

7 A I -- I could tell you that I was
8 told that, and that that, I believe, is the
9 interpretation of the class certification --
10 class definition.

11 Q Can you tell me when you were told
12 that?

13 A Prior to doing this report.

14 Q So prior -- after your merits
15 report but before your rebuttal report?

16 A Right. It mattered because, to the
17 extent that they're not seeking class
18 certification for property diminution, I
19 wasn't going to do some things to critique
20 Dr. Jackson, because they're not relevant.

21 Q Have you been told to do
22 anything -- have you been told that there's
23 any different instruction since that time?

24 A No.

1 Q And what do you understand that
2 sentence to mean that we just read?

3 A I don't know what you mean by that.

4 Q Basically, can you give a little
5 more elaboration about the issues that
6 plaintiffs are and are not seeking class
7 certification with respect to?

8 A Well, Dr. Jackson talks about
9 similarity of properties and whether they're
10 too dissimilar to establish a class. And so
11 what I'm highlighting in this sentence is
12 that he has those opinions.

13 I don't think there's a venue
14 for expressing those opinions, because, as I
15 understand it, no one is asserting a class
16 for purposes of property diminution. And
17 that's as much as I know. That's the full
18 extent of my understanding.

19 Q Since you're not an attorney, I'm
20 not going to press you on the case law.

21 A That's good.

22 Q So is it your understanding that
23 each plaintiff will provide their own
24 personal, individual opinion about property

1 value for their own property?

2 A What I do address in this opinion
3 is whether I think the individual plaintiffs
4 are qualified or whether it's reasonable for
5 them to express an opinion.

6 How they're going to go about
7 doing this, I don't know.

8 Q Is there any aspect of plaintiffs'
9 property claims to which you understand they
10 are seeking class certification?

11 A You mean their property diminution
12 claims?

13 Q Yes.

14 A I would say no, but I would not
15 consider myself an authority on that, so...

16 There may be items I'm not
17 aware of, in other words.

18 Q Are the plaintiffs seeking
19 diminution-in-value compensation based on
20 their individual property conditions and
21 impacts?

22 MS. JOELSON: Asked and
23 answered. You said he's not a lawyer.

24 A What I know is that they've

1 expressed what they think their diminution in
2 property value was as a result of the event,
3 and I'm commenting on whether they -- whether
4 it's reasonable for them to have those
5 opinions be listened to. That's all.

6 Q Is the basis for that claim of
7 diminution of value different among putative
8 class members?

9 A I have no idea. I've not talked to
10 them about their claims. I do know that
11 they're -- they do have different property
12 characteristics, so...

13 Q Are properties in the class area
14 that have measurable levels of PFOA impacted
15 the same as properties in the class area that
16 have had no detection of PFOA?

17 MS. JOSELSON: Object to the
18 form.

19 A Don't know.

20 Q You also say on page 2 of that
21 property rebuttal in the second sentence of
22 the first full paragraph on page 2, you say,
23 "That is, the processes and factors that
24 would lead to diminution of property values

1 would be expected to be common to properties
2 within the zone of contamination."

3 Did I read that correctly?

4 A Yes.

5 Q How did you determine that the
6 processes and factors are common to
7 properties within the zone of contamination?

8 A Well, I would -- I would expect
9 that factors, such as whether you need to
10 notify a buyer that your property has a deed
11 restriction on it for putting a well, would
12 be the same.

13 I would assume that you
14 would -- you're within the box on a map
15 that's publicly available, that you're --
16 that the factor of whether or not you're near
17 or directly above contamination at measurable
18 levels would be similar.

19 So I just think there's a lot
20 of similarity of factors here.

21 Q So --

22 A There --

23 Q That's an identification of certain
24 factors that you expect to be the same.

1 How did you determine that, in
2 general, the processes and factors that would
3 lead to diminution in value would expect to
4 be common for properties within the zone?

5 A I think I just said that. I think
6 that what generates a diminution of property
7 value is the market being aware of a problem,
8 and the market would be similarly aware for
9 similar persons.

10 I'm simply making the point
11 here that -- that it wouldn't be unreasonable
12 to consider this as a group, rather than
13 going individual by individual.

14 But that's the extent of my
15 opinion.

16 Q Did you identify in the course of
17 making that determination any factors that
18 would be individualized with respect to the
19 class members?

20 A In terms of their property
21 diminution claim?

22 Q Yes.

23 A I would assume the value of their
24 property would make it -- would be different.

1 Would make a difference in diminution.

2 Q And why would the value of their
3 property be different?

4 A I would expect more valuable
5 properties to experience a larger diminution.

6 Q And why -- why are more valuable
7 properties more valuable?

8 A Because the people in the market
9 will pay more for them. I'm not sure what
10 you mean by that.

11 (Pause.)

12 BY MR. WILSON:

13 Q What's the definition of "market
14 value"?

15 A The definition of "market value"?

16 Q Yes.

17 A I would make the definition that
18 it's the price at which a real asset will
19 trade for in a market that's efficient, at
20 arm's length.

21 Q And what's the source of that
22 definition?

23 A That's an economics definition.
24 You could find that -- a very similar

1 definition, for example, in the Department of
2 Interior regulations for what is market
3 value.

4 Q Are you currently or have you ever
5 been a licensed appraiser?

6 A No.

7 Q Ever been a realtor?

8 A No.

9 Q Broker?

10 A Nope.

11 Q Do you know how to appraise a
12 single-family home?

13 A No.

14 Q How would you identify comparable
15 sales if you were looking at a given property
16 to value it?

17 A So if I were looking to purchase
18 property, for example?

19 Q Yes.

20 A I would look -- I would look for
21 characteristics that are similar. So similar
22 neighborhood, similar school, similar crime
23 rate, similar size.

24 Q Is "similar" an objective criteria?

1 A It -- it could be objective, and it
2 could be subjective.

3 Q What are some examples of some
4 objective criteria for similarity and some
5 subjective criteria for similarity?

6 A Objective would be square foot of
7 the lot, which can be measured the same by
8 everyone. Subjective would be whether the
9 house is attractive or not.

10 Q And you might also have to make
11 some comparisons for other properties
12 regarding the degree to which they were
13 similar or dissimilar; is that correct?

14 MS. JOELSON: Object to the
15 form.

16 A I already said I'm not an
17 appraiser, but if I were considering a
18 property, I would consider the full suite of
19 attributes.

20 Q And some of those will be
21 objective, and some will be subjective; is
22 that correct?

23 A Yes. And the subjective criteria
24 could, through econometrics, be converted to

1 objective measures.

2 Q Are you familiar with the process
3 for applying adjustments to comparable sales?

4 A Broadly speaking, yes.

5 Q Can you describe it to me?

6 A As I understand it, there's a set
7 of rules that appraisers follow when they
8 aren't able to identify an exactly comparable
9 sale, so they're not -- you're not in
10 Leavittown or something where all the houses
11 are the same, and there's a process for
12 adjusting for differences.

13 Q Did you personally inspect any of
14 the properties in the proposed class area?

15 A No.

16 Q Did you photograph any of the
17 properties in the proposed class area?

18 A I don't believe so.

19 Q Have you been to the proposed class
20 area?

21 A Yes. That's why I'm hesitating on
22 photographing. We did take pictures. There
23 might have been a house in the picture.

24 Q Did you go to the proposed class

1 area in connection with this rebuttal opinion
2 on property?

3 A Not a second trip, no.

4 Q So your only visit to the proposed
5 class area was in connection with your merits
6 opinion on groundwater damages; is that
7 correct?

8 A Visits for which I was paid as a
9 consultant to go to the area. I'm familiar
10 with Bennington for many years, though.

11 MR. WILSON: Now, you'll
12 object, because this is covering the first
13 deposition.

14 BY MR. WILSON:

15 Q Is that because you have a home in
16 Vermont?

17 A We do have a family home in
18 southern Vermont.

19 Q Okay.

20 A It's...

21 Q That's not prejudicial.

22 A It's many miles from Bennington.

23 Q Have you made any attempt to
24 identify the types of properties that are

1 present in the proposed class area?

2 A I'm not sure what you mean by that.

3 Q Like, what's the breakdown between
4 residential, single-family residential,
5 commercial, industrial.

6 Have you attempted to do so?

7 A No. I'm aware that it is mixed,
8 depending on where you are in the area.

9 Q Have you considered the individual
10 characteristics of any properties in the
11 class area?

12 A No.

13 Q Would you consider the proposed
14 class area to be diverse or homogeneous?

15 MS. JOELSON: Object to the
16 form.

17 A I would say if I were constructing
18 a hedonic model, I would consider this to be
19 a heterogeneous area, not homogeneous.

20 Q What are some examples of the
21 heterogeneity you would find within the
22 proposed class area with regard to
23 properties?

24 A Different lot size. You know,

1 different neighborhoods have different lot
2 sizes.

3 Q Other than lot size, anything else?

4 A Age of home.

5 Q Anything else?

6 A Distance to town center. I could
7 go on all afternoon, so...

8 Q Please do.

9 A You could list any number of
10 factors that differ across space and make
11 it -- make it heterogeneous.

12 Q Can you identify ten for me?

13 A Factors?

14 Q Yes.

15 A By individual home?

16 Q By a variety of things you'd see in
17 the class area.

18 A You would see different numbers of
19 bedrooms, bathrooms, lot size, home size, the
20 construction style. Again, as I said,
21 distance to town center, distance to roads,
22 you know, major intersections, that kind of
23 thing.

24 Q Okay. That's seven.

1 Can you give me three more?

2 A You could have crime. You could
3 have access to wells or not, right, as we've
4 already gone over. And you could put access
5 to other amenities, like public parks.

6 Q There's ten.

7 Have you researched real
8 estate market trends in the Bennington area?

9 A We have looked. We did not -- it
10 did not get incorporated in the reports, but
11 we did look at whether there are data
12 available on market trends.

13 Q Why didn't it get incorporated into
14 the reports?

15 A Wasn't asked to build a model.

16 Q Can you tell me what that data
17 said?

18 A My initial impression is, it showed
19 a reduction in sales frequency following the
20 event.

21 Q Anything else it showed?

22 A It showed a market that's
23 relatively variable in prices from time to
24 time -- over time.

1 Q Did it show anything with regard to
2 prices of homes following the event?

3 A Didn't analyze it.

4 Q After the --

5 A I'd say we didn't analyze that
6 because when we looked at it, it hadn't been
7 very long after the event. So there's not a
8 pattern there to look at.

9 We do see a sales frequency.
10 It's a little easier to look at.

11 Q Did you see anything that you
12 determined was an observable diminution in
13 value in those trends?

14 A I would be concerned about the
15 sales frequency. That's -- that is one --
16 one measure of demand in the market.

17 Q And you haven't looked at it again
18 since that initial look shortly after the
19 event?

20 A No.

21 Q And is it generally true that
22 property values will come back up after
23 environmental issues have been remedied in a
24 community?

1 MS. JOELSON: Object to the
2 form.

3 A So as I note in my opinion, the
4 literature seems to indicate that property
5 values recover after the environmental
6 contamination is remedied. So that factor
7 seems to be a significant determinant of
8 property value.

9 But that -- that -- the remedy
10 there is not connecting people to water.
11 It's actually going and putting in a
12 pump-and-treat systems or something that
13 causes the contamination to go away, or clean
14 up the landfill that's causing the effect, or
15 whatever the disamenity was.

16 Q So when you were looking at real
17 estate market trends in the Bennington area,
18 what data sources did you rely on?

19 A Well, there's repeat sale data.
20 Not repeat sale. There are publicly
21 available sales data, you know, Zillow, those
22 types of things, and there's also census
23 data.

24 Census data is too large a

1 time period between the blocks, but...

2 Q Anything else that you looked at?

3 A I'd have to go back and see which
4 data sources we pulled out. There are some
5 commercially available data sources as well.

6 Q Although you ultimately didn't
7 include this data in your opinion, did it
8 inform or modify the opinions you did offer
9 in any way?

10 A No, I'm not offering an opinion on
11 diminishing values. I would need to do more
12 work on that.

13 Q What methodology are you proposing
14 for the purposes of evaluating a potential
15 diminution in value for each individual
16 property in the proposed class area?

17 MS. JOSELSON: Object to the
18 form.

19 A So what -- what my opinion says is
20 that I don't think it's unreasonable for
21 owners of real estate to express their own
22 opinion as to diminution. I don't think
23 that's an unreasonable thing.

24 As I understand, it's allowed

1 for within the law. It's used by the Census
2 Bureau, and it's -- you know, people do it
3 when we buy homes. We all participate in
4 markets.

5 I -- beyond that, I'm not
6 proposing a methodology to get at individual
7 home losses. I'm just pointing out that I
8 think that that's not unreasonable.

9 And I think it would be
10 difficult, given the ongoing dynamic
11 situation there, to do a formal econometric
12 hedonic model in the community, because I
13 don't think enough time has passed by.

14 Q Are there any other considerations
15 that make a hedonic model difficult in this
16 case, other than time?

17 A Cost. You know, you decide whether
18 you want to spend the money on it. And
19 whether or not reasonable control groups can
20 be identified.

21 But if you do a repeat sale
22 model, which requires more time to pass by,
23 you address the control issue.

24 Q Anything else?

1 A Well, there's all sorts of things
2 you'd want to control for within the model,
3 but I don't -- those things wouldn't make it
4 difficult to conduct it. They'd just be
5 things you'd have to consider.

6 Q Okay. I guess we'll get to some of
7 those in a bit.

8 MR. WILSON: Let's take a
9 break.

10 MS. JOSELSON: I was just
11 going to say.

12 THE VIDEOGRAPHER: The time is
13 2:07. We are going off the record.

14 (Recess.)

15 THE VIDEOGRAPHER: We are back
16 on the record. The time is 2:26 p.m.

17 BY MR. WILSON:

18 Q Mr. Unsworth, I just wanted to come
19 back to something you mentioned earlier about
20 the falloff in sales frequency that you
21 observed in the sales trend data for
22 Bennington.

23 Other than the discovery of
24 PFOA, is there anything else that might cause

1 a falloff in sales frequency?

2 A Yeah, I guess I would go -- I would
3 go further than that. I would say we -- we
4 observed those data. The decision was made
5 not to construct a model, and so I didn't try
6 to explain what was causing that. I did
7 observe it; it was interesting.

8 Yes, there could be other
9 factors that would have to be controlled for
10 within a model. There might -- may be other
11 factors that have to be controlled for.

12 Q For example, like concerns about
13 the local schools? Would that be a potential
14 factor that could cause a falloff in sales
15 frequency?

16 A Well, so you'd want some event
17 that's correlated with the thing you're
18 trying to model, so that -- you know, you --
19 you'd have to have the event be at the same
20 time and the same location compared to your
21 control group.

22 Q And if there was a public concern
23 about the schools at the same time of the
24 discovery of PFOA, is that a potential

1 confounding variable to attributing the
2 falloff in sales frequency to PFOA?

3 MS. JOSELSON: Object.

4 A It could be. You'd need to --
5 you'd need to determine whether that's --
6 whether there's that correlation.

7 Q Can you tell me whether you
8 observed this falloff in sales frequency in
9 Bennington or North Bennington, or both?

10 A I don't recall what the data were
11 for. I think it was for the county, so...

12 But I'm not going to testify
13 to that.

14 Q So can you tell me what some of the
15 practical effects of experiencing a
16 diminution in market value on someone's home
17 are?

18 What are the practical effects
19 for that person if their home goes down in
20 value?

21 MS. JOSELSON: Object to the
22 form.

23 A You mean besides they've lost asset
24 value that they previously believed they had?

1 Q I guess it's how did they realize
2 that loss in asset value?

3 MS. JOELSON: Object to the
4 form.

5 A So -- so they would -- they would
6 realize it in a cash term when they sold the
7 home. They would realize it potentially in
8 an ability to get home equity if they tried
9 to borrow money, and they would realize it in
10 the form of lost services while they own it,
11 the very same services that people aren't
12 willing to pay as much for for the home.

13 So an example would be that
14 if -- imagine you had a three-bathroom home
15 and one of the bathrooms was no longer
16 functional for some reason. The -- the
17 market price for that home would decline, but
18 the person who lived in the home would also
19 experience that same loss of service.

20 So they would experience it as
21 a loss of -- of amenity provided by the home.

22 Q So --

23 A Your example of the school system
24 is a good one. Schools that become poor over

1 time may drive down housing prices, and the
2 people who live in the homes, who still live
3 there, would experience the reduction in
4 schools.

5 Q In that case, though, it's -- is
6 that a chicken-or-the-egg situation? Or
7 maybe you've got the causation the other way
8 around? Because there, it's not the
9 diminution in value that's causing the loss
10 of a bathroom or the problems in the schools.
11 It's the problems in the schools or the loss
12 of the bathroom that's causing the diminution
13 in value; is that correct?

14 MS. JOELSON: Object to form.

15 A Either way, the value is reflective
16 of the services provided by the asset, the
17 amenities minus the cost of owning it.

18 So if the property value has
19 gone down, there's some loss of amenity value
20 to the current homeowner.

21 You could -- we've done cases
22 where we've converted it to an economic rent,
23 for example, and you could express it that
24 way.

1 Q But the two main practical effects
2 of a diminution in market value are realized
3 either with the sale of the home or at the
4 time that you attempt to use your home equity
5 through a line of credit or refinance; is
6 that correct?

7 MS. JOELSON: Objection.

8 A I would say no, that's not -- I
9 wouldn't distinguish the practical effect of
10 the -- of the cash harm from the loss of
11 service.

12 And, as I said, we've modeled
13 that as a loss rental during the period of
14 ownership.

15 Q Are you telling me that a loss -- a
16 diminution in value itself causes a loss of
17 services?

18 A No, I'm saying the factors that
19 lead to the diminution in value cause the
20 loss of services. The diminution in value is
21 simply the market's expression of it.

22 Q Yes.

23 So I'm asking -- when I
24 mention the home sale and the home equity

1 lines of credit, I'm asking, are those the
2 two primary consequences of the diminution in
3 value?

4 A And I've already told you several
5 times that I disagree with that.

6 It's common for the assertion
7 to be made that there's no loss to homeowners
8 who face a disamenity, a new disamenity,
9 until they go to sell their home, and I don't
10 agree with that. That's not correct.

11 Q So what disamenity did they face
12 because of the diminution in value itself?

13 What disamenity did they face
14 that's caused by the diminution in value?

15 MS. JOELSON: Asked and
16 answered.

17 A The -- the diminution that -- the
18 loss they feel is due to the loss in the
19 amenities or the gain in disamenities.

20 It's not -- the diminution in
21 value is just the market's expression of it.
22 So a person that lives in a home that's above
23 contamination will still perceive the home to
24 be worth less to them than they did prior to

1 the contamination.

2 Q So I want to --

3 A The home is not simply a financial
4 asset. It's also something people are living
5 in, and they're accruing benefits from living
6 in it.

7 Q I want to briefly discuss some of
8 the other litigations that you referred to
9 where you provided some kind of an opinion on
10 diminution of value.

11 And if you just tell me, for
12 each one of the litigations that I identify,
13 what was the nature of the claim and whether
14 you were the main author of the report, so --

15 A There may -- there may need to be
16 other characteristics, but go ahead.

17 Q Yes.

18 So you identify an Illinois
19 refinery groundwater contamination case.

20 Is that the LeClerc v.
21 Lockformer case?

22 A No.

23 Q Okay.

24 So in the refinery groundwater

1 contamination case, were you the main author
2 of the report?

3 A I don't recall whether a formal
4 report was submitted there. As I understand
5 it, the case settled. It was -- the claim
6 involved a refinery that were the plume of
7 contaminants in a community to the east of
8 St. Louis.

9 Q And what were you retained to
10 evaluate?

11 A Property diminution.

12 Q On behalf of the plaintiffs or the
13 defendants?

14 A Plaintiffs.

15 Q You identify Indiana Waste
16 Processing Facility contamination case.

17 Were you the lead author of
18 the report in that case?

19 A In that case, there was no report.
20 We did a -- we did a briefing for the client,
21 and they used it in their settlement
22 negotiations.

23 Q Were those diminution-in-value
24 claims?

1 A That was a diminution-in-value
2 claim, yes.

3 Q You identify a Rhode Island power
4 plant contamination case.

5 Were you the lead author of
6 the report in that case?

7 A Same thing. No expert report was
8 submitted. Case -- the case -- I don't
9 actually remember the -- the disposition of
10 that case.

11 Q And those were also
12 diminution-in-value claims?

13 A Yes.

14 Q You identify an Atlanta, Georgia
15 water supply case.

16 Was there a report in that
17 case?

18 A There was a confidential report in
19 that case. It's -- so that case involves the
20 conflict of water use between Georgia and
21 Florida of the Apalachicola and Chattahoochee
22 River, and we were looking at whether a
23 dramatic change in water supply from Lake
24 Lanier would -- could result in loss of

1 regional property values.

2 Q Was there a Supreme Court case on
3 that? A long-running Supreme Court dispute?

4 A Yes, it is.

5 Q Yes.

6 And there's the Massachusetts
7 New Bennington [sic] Harbor groundwater
8 contamination action.

9 A New Bedford Harbor.

10 Q Oh. Someone typed it wrong.

11 A Properly pronounced as "New
12 Bedford."

13 MS. JOELSON: "Bedford."

14 Q We've just got Bennington on our
15 minds.

16 So that was a -- was there a
17 report in that case?

18 A There was a report in the case. It
19 was done by Robert Mendelsohn at Yale, and I
20 was the analyst who worked on the project.

21 Q Okay.

22 Is that report confidential?

23 A That report may be hard to find. I
24 don't believe it was confidential. He was

1 deposed on it.

2 Q Okay.

3 So I'm going to represent to
4 you that of the litigations that we've talked
5 about so far, we haven't received any
6 materials regarding them.

7 And so for the Massachusetts
8 case, you're telling me that we haven't
9 received those materials because they're hard
10 to find; is that correct?

11 A No.

12 So for the -- for all the ones
13 prior to New Bedford, those are all
14 confidential.

15 Q Yes. And that was what I was going
16 to get to next.

17 A Yes.

18 Q And the Massachusetts one, it's
19 just hard to find?

20 A Yeah, I could try to find a -- I
21 probably have it somewhere, but I have to go
22 looking for it.

23 It's very old, yes.

24 Q And so you're basing --

1 A And the -- and the -- that report
2 is memorialized in a published paper, which
3 you do have.

4 Q And so you are basing your report
5 in this case on the methodology that was used
6 in those cases; is that correct?

7 MS. JOSELSON: Objection.

8 A No, I'm not. I mean, that's part
9 of my experience, but I'm not -- my opinions
10 are not based on factors in those cases.

11 Q Don't you cite those opinions in
12 support -- or cite those litigations in
13 support of your work in this case?

14 A I cite the -- I cite the Lockformer
15 case in support. I cite the other ones in
16 support of my qualifications.

17 Q Don't you cite some of them in
18 support of your methods as well?

19 A You'd have to go to that page. I'm
20 not sure. The New Bedford case I might
21 have -- I might have noted.

22 (Pause.)

23 Q Let's move on to a different
24 subject here.

1 So with regard to determining
2 any diminution in value that the class
3 members have experienced in this case as a
4 result of PFOA, who is best qualified, in
5 your opinion, to opine on the amount of that
6 diminution in value?

7 MS. JOSELSON: Object to the
8 form.

9 A I've already stated that I think
10 the property owners themselves are qualified
11 to opine.

12 Q And are they best qualified?

13 A "Best" as compared to what?

14 Q As compared to an economist, as
15 compared to an appraiser.

16 A I think it depends on how the
17 analysis is done.

18 You know, we've already talked
19 about the fact that in this case, doing an
20 econometric model, something an economist
21 would typically do, would be difficult. So
22 it may be that an economist isn't the right
23 person to opine on the particular
24 quantitative loss. The homeowner might be

1 more qualified.

2 Q That's --

3 A Whether the appraiser is more
4 qualified is -- depends on how well the
5 analysis is done, and I think -- I mean,
6 obviously, the appraiser has the opportunity
7 to present their opinion as well.

8 Q And you testified that an
9 econometric model would be difficult because
10 of the lack of sufficient sales data at this
11 time; is that correct?

12 MS. JOELSON: Objection.

13 A Right. So you always have the
14 issue that you want enough sales data. You
15 also have to observe the market.

16 In this case, I think the most
17 likely success of modeling would come through
18 the repeat sales model. And that means not
19 only you have enough sales, but they have to
20 be sales of properties that have prior sales
21 data for them, because that's how you control
22 for the control group.

23 So, you know, I haven't tried
24 to do it, so I don't know, and I wasn't

1 offering an opinion on what the results would
2 be of that specific model.

3 Q So, just to be clear, you haven't
4 attempted to develop a hedonic or econometric
5 damages model for this case; is that correct?

6 MS. JOELSON: Asked and
7 answered. You can --

8 A Not on property value. That's
9 correct.

10 Q Are the named plaintiffs in this
11 case better qualified to testify as to the
12 alleged diminution in value they've
13 experienced than you are?

14 A At this time, yes.

15 Q So let's take a look at page 2 of
16 your rebuttal on the property issues.

17 MS. JOELSON: It's Exhibit 4,
18 I think.

19 A I'm sorry. I was looking for the
20 exhibit. You mean this is the Exhibit 4,
21 yes.

22 Q So on page 2, there's a bullet in
23 the middle of the page. It says,
24 "Mr. Phillips' opinions regarding the

1 inability of residents to testify reliably as
2 to the magnitude of property diminution value
3 they have suffered is inconsistent with the
4 plain language of Vermont law. The owner of
5 real personal property shall be a competent
6 witness to testify as to the value thereof."

7 Did I read that correctly?

8 A You did.

9 Q Does this statute say that the
10 owner of a property is competent to testify
11 to the magnitude of diminution of value of a
12 property they own?

13 A By definition, if they're competent
14 to testify to the value, they can be
15 competent to say what the value was before or
16 after something happened.

17 Q Don't they also have to offer a
18 third opinion in that regard, to testify to
19 diminution?

20 A I don't know what you mean by that.

21 Q Is it true that a diminution in
22 value that occurs after an event is caused by
23 it?

24 A That -- what they're talking here

1 is how much they believe their property went
2 down in value because of the discovery of the
3 presence of contaminants.

4 So it was at the moment of
5 discovery that the diminution occurred, in
6 their minds.

7 Q So they're also testifying to
8 causation of diminution in value; is that
9 correct?

10 A They believe this factor has caused
11 their property to go down in value, that's
12 right.

13 Q So does this Vermont statute that
14 you cite, does it say the owner of real or
15 personal property shall be a competent
16 witness as to the causal circumstances that
17 have led to a diminution in value in the
18 property?

19 MS. JOELSON: Object to the
20 form.

21 A Well, I think that if you're going
22 to allow residents to testify as to the value
23 of their property, all of the factors that
24 lead to those -- to that property value are

1 incorporated in their opinion.

2 So I don't know how you would
3 avoid it, right? I mean, if they -- if they
4 believe their property is worth more because
5 the schools are great, that's a factor that
6 causes the property to be worth more.

7 Q Does it say that -- in the statute
8 that an owner of property is competent to
9 testify that, because the schools are great,
10 their property value has changed?

11 A It doesn't, but I think that's
12 implied in the language. And you're also
13 talking to an economist here, so I'm just
14 reading the plain language of it, so...

15 I guess you can argue the law
16 later.

17 Q So you're not offering a legal
18 opinion in this case?

19 A No, I'm reading the plain language
20 of the law, and I read the example case,
21 which is interesting, from Stow.

22 Q Did you research that law yourself?

23 A No.

24 Q How did you find the case?

1 A I asked whether this had ever come
2 up in court, and Emily sent it to me.

3 Q Now, because the State of Vermont
4 allows property owners to testify about their
5 property values, does that mean that their
6 opinions about those values are reliable?

7 A I think that would be judged by the
8 trier of fact.

9 Q Does it mean that their property
10 value opinions are credible?

11 A That would be judged by the trier
12 of fact.

13 Q Does it mean that they're accurate?

14 A That would be judged by the trier
15 of fact.

16 Q Let's take a look at page 6 of this
17 report.

18 The bottom of page 6, it says,
19 "Given the existence of other widely accepted
20 methods, including use of self-reported home
21 values, I believe that Mr. Phillips misleads
22 the court in stating that the appraisal
23 approach is the only approach to value a
24 residential property."

1 Did I read that correctly?

2 A Yes.

3 Q Implicit in this sentence is the
4 idea that the use of self-reported home
5 values is a widely accepted method of valuing
6 residential property; is that correct?

7 MS. JOELSON: Object to the
8 form.

9 A Well, implicit in that statement is
10 that the Census Bureau asks people what they
11 think the value of their property is, and
12 those data are used by researchers in a
13 variety of fields.

14 Q So talking about those methods, you
15 mentioned the census uses self-reported home
16 values?

17 A Well, the census gathers
18 self-reported home values. I don't know if
19 anyone at the Census Bureau actually -- I
20 don't know that they're responsible for using
21 those data. They gather them.

22 Q What other examples can you think
23 of where self-reported home values might be
24 relied upon to establish something?

1 A You mean from the census?

2 Q Not from the census, but just other
3 contacts besides the census in which
4 someone's self-report of their home value is
5 going to be a fact that's going to be relied
6 on to establish something?

7 A I think people self-report values
8 for real estate all the time for things like
9 getting loans.

10 Q So when people -- if I walk down to
11 Citizens Bank downstairs and I walk in and
12 say, I'd like to get a loan against my home
13 as collateral, and they say, What's your home
14 worth? I say, \$8 million. They say, All
15 right, thank you. We'll accept an 80 percent
16 loan-to-value on that, and we'll get the loan
17 documents drawn up right away, Mr. Wilson.

18 Do you think that's likely
19 they'll say that?

20 MS. JOSELSON: Object.

21 A For you in particular, I don't
22 know, but people do report -- you know,
23 inventory their assets and report that to
24 folks who are offering loans.

1 People use it when they report
2 assets, for example, when they entered into
3 nursing homes and things like that.

4 So there is -- people do
5 self-report.

6 Q They do self-report.

7 Now, will the bank rely
8 exclusively on my self-report? Although I am
9 certainly a very reliable individual --

10 A Yes.

11 Q -- will the bank rely exclusively
12 on my self-report of my home's value in order
13 to decide to give me a loan?

14 A It would depend on how close you
15 are to the margin to give you the loan.

16 Q And how will they determine whether
17 I'm close to the margin?

18 A How big the loan is relative to
19 your assets.

20 Q So are you aware of situations
21 where banks give loans based on just
22 someone's self-reported number without any
23 due diligence?

24 MS. JOSELSON: Object.

1 A Well, unrelated, I believe that's
2 part of the problem of the recent problems
3 with some of Trump's people; but no, I
4 think -- my point is that people do
5 self-report values. I didn't assert that
6 here. What I asserted is the Census Bureau
7 finds it to be reliable fact.

8 Q And I'm asking whether other people
9 besides the Census Bureau will rely on those
10 self-reports.

11 For example, in the course of
12 issuing a home loan, will a lender rely on a
13 self-reported home value or will they conduct
14 additional diligence?

15 A You would have to ask lenders that.
16 All I know is the Census Bureau has a formal
17 process for determining what a fact is, and
18 they have determined this is a reasonable way
19 to gather that fact.

20 Q How many mortgages have you had in
21 the course of your life?

22 A I couldn't say.

23 Q Approximately?

24 MS. JOSELSON: Object.

1 Relevance.

2 A Half dozen.

3 Q And in each case where you applied
4 for a mortgage, did the bank accept your
5 self-reported home value?

6 A I believe in one case they did,
7 yes.

8 Q And what did they do in the other
9 cases?

10 A They probably had it appraised.

11 Q Ohhh, they had it appraised.

12 MS. JOSELSON: Okay. I'm
13 going to caution you and urge you to be
14 respectful as we go forward, as I assume you
15 will.

16 MR. WILSON: And I'm just
17 saying that we are -- when I'm trying to get
18 to something, it's easier if we get to it
19 right away.

20 MS. JOSELSON: Then ask a
21 direct question, Linc. You know how to do
22 that.

23 BY MR. WILSON:

24 Q Now, are self-reported home values

1 used to determine the list prices for the
2 sale of real estate?

3 A Sure, if the person self-lists.

4 Q When they're listed by the realtor,
5 will the realtor just take whatever the
6 homeowner says is the value of the real
7 estate and list it at that price?

8 A The realtors I know would take your
9 understanding of what you think your home is
10 worth, and they would include their own
11 understanding, and they would decide what to
12 list it at. They would include their own
13 understanding of the market.

14 Q When market value is at issue, do
15 you consider self-reported home values to be
16 more or less reliable than appraisal methods?

17 MS. JOSELSON: Asked and
18 answered, but you can answer.

19 A It would depend on the quality of
20 the appraisal method. I think you're
21 comparing two things here, so I need to know
22 how good either one of them is.

23 Q So that it depends on how well --
24 well, let me take a step back.

1 So you have no problem with
2 the reliability of the appraisal method per
3 se --

4 MS. JOSELSON: Object.

5 Q -- is that correct?

6 A I -- I have no problem with the
7 appraisal method per se. I know that there
8 are a series of steps that an appraiser goes
9 through.

10 My concern is whether the
11 inferences that are drawn from that can be
12 helpful here.

13 Q And we've talked about the census
14 data a little bit --

15 A And I should also say that some
16 people use the census data in the form of
17 mass appraisals, as they refer to. They mix
18 the two methods.

19 Q What's different about the use of
20 self-reported home values in census data from
21 the current context, where you're relying on
22 self-reported home values?

23 A What's different? I'm not sure
24 what you mean by that.

1 Q What's the difference in the use of
2 the self-reported home values?

3 MS. JOSELSON: Object to the
4 form.

5 A In this case, I think the -- the --
6 it sort of seems obvious. The plaintiffs are
7 asserting that they should be able to testify
8 as to the diminution in their property value.

9 The census data folks are
10 being asked what they think their properties
11 are worth for purposes of really supporting
12 large-scale understanding in changes of
13 demographics and then financial well-being of
14 different geographic areas, et cetera.

15 Q And census participants are only
16 asked the current value of their homes; is
17 that correct?

18 A Among other questions in the
19 American Community Survey, that's one of the
20 questions they get asked.

21 Q They're not asked whether
22 environmental contamination has affected
23 their home value, are they?

24 A No. But presumably if they thought

1 it did, they would not report a value as
2 high. It would be embedded in along with all
3 of the other factors that they believe
4 contributed to their home value.

5 Q Do census participants have any
6 vested interest in the value that they report
7 to the Census Bureau?

8 A I don't know if -- I don't know
9 what's on their minds when they fill out the
10 survey, but they don't get any benefit from
11 it directly, no.

12 Q And that's different from a
13 situation where someone is pursuing a claim
14 in litigation trying to recover for an
15 alleged diminution in value; isn't that
16 correct?

17 MS. JOSELSON: Objection.

18 A I think -- I think you could say
19 that the parties here have an interest,
20 obviously, but so did the party in the Stow
21 case. They were facing a different tax rate,
22 and they obviously had a -- had an interest
23 there.

24 Q Does the census use any checks on

1 self-reported home values to eliminate data
2 that are outliers?

3 A There is a -- there is an outlier
4 analysis they do. There's also been several
5 published papers on the reliability of those
6 data.

7 All the data census collects,
8 there's a screening process to get rid of bad
9 data.

10 Q Would it be appropriate to look at
11 self-reported values here and identified
12 outliers?

13 A I don't know enough about the
14 self-reported values. I don't know if you --
15 from a statistical standpoint, you don't have
16 enough observations to have outliers.

17 Q So on page 2 of your rebuttal on
18 property, second bullet from the bottom, you
19 say -- I'm in the last sentence of that
20 bullet -- that, "Mr. Phillips' opinion
21 ignores the abundance of public information
22 available to these residents in developing
23 their opinions."

24 Did I read that correctly?

1 A No, but you largely got it right.

2 Q I paraphrased Mr. Phillips' --

3 A You asked if you read it correctly.
4 I said no.

5 Q Well, thank you for keeping me
6 honest, Mr. Unsworth.

7 MS. JOSELSON: It's hard work,
8 but someone's got to do it.

9 MR. WILSON: Slander,
10 Ms. Joselson, slander.

11 (Laughter.)

12 BY MR. WILSON:

13 Q What public information do you have
14 in mind that the named plaintiffs could use
15 to develop their value opinions?

16 A Oh, what I said here is that -- you
17 have to reference back to what I say later,
18 which is that individuals, when they're
19 entering into a market to look at real
20 estate, have all sorts of online stuff and
21 other information they could look at to
22 determine whether the price that's being
23 offered for the home seems reasonable.

24 Q I think you identified in your

1 report Zillow and Redfin, different sources?

2 A Yes, yes.

3 Q Any other publicly available
4 information sources that you would think of?

5 A I have not gone to buy a home
6 recently, so I would have to ask my staff,
7 who have been in the market recently, to know
8 whether --

9 The one I'm very familiar with
10 is Zillow, so...

11 Q Do you think it's important to base
12 opinions on value and property value
13 diminution on market data?

14 MS. JOELSON: Objection.

15 A I think market data might inform
16 understanding of it.

17 Q Have you looked at the deposition
18 testimony of the named plaintiffs here to
19 evaluate the bases of their opinions on
20 diminution of value?

21 A No.

22 Q Is it your understanding that
23 property owners can also testify as to the
24 effect of complex environmental factors on

1 values of their homes?

2 A I believe that's what they're doing
3 when they have an opinion as to the effect of
4 contamination on their home.

5 Q And it's your understanding that,
6 not only can they testify as to the value of
7 their home, they can testify to the value of
8 their home and how it's been affected by
9 complex environmental factors?

10 MS. JOELSON: Asked and
11 answered.

12 A Yes. I've already said if someone
13 can testify to the value of their home, they
14 should be able to testify to the change in
15 the value of their home.

16 Q And to the --

17 A The trier of fact would obviously
18 need to consider how reliable that is.

19 Q And they can also testify to the
20 complex environmental factors that have
21 allegedly caused that change?

22 A I don't think they would
23 necessarily have to know how the situation
24 got to the way it is. They would just have

1 to know that there's new information that
2 indicates the situation has changed.

3 Q But they need to testify to the
4 conclusion that, regardless of the process,
5 the change in value is something they
6 attribute to complex environmental factors;
7 is that correct?

8 MS. JOELSON: Object to the
9 form.

10 A I don't know how complex it is. If
11 your well is now contaminated and it didn't
12 used to be contaminated, that's pretty
13 simple.

14 If you're within a box where
15 they say you can't drill a well, that's
16 pretty simple. Those aren't exactly complex
17 environmental factors.

18 Q Have you read the expert reports on
19 fate and transport that have been submitted
20 on behalf of the plaintiffs and defendants in
21 this matter?

22 A No.

23 Q So you wouldn't know, really,
24 whether the environmental factors in this

1 case are complex or simple?

2 MS. JOSELSON: Objection.

3 Asked and answered.

4 A I think I just said, I think the
5 homeowners are concerned about the poor
6 after-condition. How it got there and what
7 factors led to that isn't actually relevant
8 to them.

9 Q So you're saying that a
10 homeowner --

11 A They're saying their property has
12 gone down in value. They're not describing
13 the atmospheric conditions that led to that.

14 Q So you're saying that a homeowner
15 can say my property value was X. Then PFOA
16 was detected in my home -- I'm sorry, in my
17 groundwater. Now my property value is less
18 than X.

19 A Mm-hmm.

20 Q Therefore, the change is
21 attributable to the detection of PFOA in my
22 groundwater.

23 MS. JOSELSON: Objection.

24 A As I understand it, that is what

1 they're testifying to, yes.

2 Q Are you familiar with the fallacy
3 of post hoc ergo propter hoc?

4 A Yes.

5 Q What is that fallacy?

6 A Well, just because -- effectively,
7 just because something has changed at the
8 same time something else has changed, they
9 must be related, would be one way of saying
10 it.

11 Q Yes.

12 Just because something occurs
13 after an event does not mean that it was
14 caused by that event?

15 A Right.

16 Q But you're saying that the
17 plaintiffs are allowed to do that here?

18 MS. JOELSON: Objection.

19 A Yes. And keep in mind, here, for a
20 lot of these folks, the knowledge of the
21 event literally came in a moment. So there's
22 not a lot of other things changing during
23 that moment.

24 But I'm not -- in my report,

1 I'm not -- I'm not asking the reliability of
2 their opinions. What I'm stating is that it
3 is reasonable that people can have their
4 opinions as to their property values. That's
5 not -- that -- it's --

6 The sole understanding of
7 property values is not held by appraisers.

8 Q What information do you think you
9 would need to develop an opinion on the
10 current value on your own home?

11 MS. JOSELSON: Object.

12 A So --

13 MS. JOSELSON: Way beyond the
14 scope of his report, but go ahead.

15 A I would -- I would look at homes
16 that have transacted recently. I would
17 probably look at prices over time. And since
18 I'm an economist, I would probably apply
19 local inflation rates of real estate to it,
20 and I would consider the attributes in my
21 home relative to similar homes, and I would
22 also take into account that my home was
23 exceptional, so...

24 Q I'd love to hear about it, but I

1 think she would probably object it's outside
2 the scope.

3 A Yes. My home is also not for sale.

4 Q Okay.

5 But maybe you want to use your
6 home equity. I'll ask you on a break why
7 it's exceptional.

8 (Laughter.)

9 Q Would you consider your opinion as
10 to the value of your home to be reliable?

11 A Yes.

12 Q And would its reliability be a
13 function of the fact that you considered that
14 information in developing it?

15 MS. JOELSON: Object.

16 A All the things that entered into my
17 understanding of the home value.

18 Q If you had a PFOA detected in the
19 water at your home, would be capable of
20 developing a reliable opinion of its
21 potential effect on your home's value, using
22 that public information that you referred to
23 earlier?

24 A Possibly. I would also -- I would

1 also likely have my own opinion as to how
2 that might affect my home value.

3 Q How would you use that public
4 information to determine the effect on home
5 value?

6 A I would look and see what sales are
7 doing of homes that are similarly situated.

8 Q Out of curiosity, in the one
9 instance where you sought a mortgage and the
10 bank accepted your self-reported home value,
11 do you know why the bank accepted your
12 self-reported home value?

13 A I would assume it's given our
14 financial situation. I would also consider
15 that to be personal, so...

16 Q So Zillow, Redfin and similar
17 sites, they provide an estimate of market
18 value of homes; is that correct?

19 A Yeah. I think they also in some
20 cases report actual sales, so those aren't
21 estimates. Those are actuals.

22 Q Where they're reporting an
23 estimate, do you know what those estimates
24 are based on?

1 A I don't know what their algorithms
2 are. I'm not sure they share those
3 algorithms.

4 Q In the absence of knowing the
5 methods that they use, how do you know those
6 methods are reliable and reasonably relied
7 upon?

8 A Well, I know they're --

9 MS. JOSELSON: Objection.

10 A I know they're relied upon, because
11 everyone who buys a house these days looks
12 there to see what the prices are in Zillow,
13 and they build that into their estimate of
14 what they're willing to offer.

15 Is that what you mean?

16 Q I'm wondering why it is reasonable
17 for you as an expert to rely on those Zillow
18 estimates when you don't know the methods by
19 which those Zillow estimates are computed.

20 MS. JOSELSON: Objection.

21 A I think you asked me whether folks
22 rely upon. I think what they see is that,
23 through repeated observation, that Zillow
24 kind of gets it right, that it's not a bad

1 measure of actual price.

2 I would incorporate that with
3 they also might feel that some observations
4 on Zillow wasn't correct. They incorporate
5 it with all the other information they had
6 before them.

7 Q Do you know whether the valuation
8 techniques used by Zillow and Redfin are
9 discussed in peer-reviewed literature?

10 A No idea.

11 Q Did you check?

12 A I did not.

13 Q Do you know if they can be tested?

14 A Yes, I'm sure you could -- I mean,
15 I don't know of anyone who's done it. I
16 would have to ask somebody like Jeff Zabel,
17 who deals with that a lot.

18 Since Zillow records their
19 estimates of home values and then values
20 transaction to market, you could see whether
21 they're reliable or not over time.

22 Q Do Zillow and Redfin provide any
23 tools to estimate the impact of local
24 environmental events on market value?

1 A I think you might be able to use
2 those data to observe that. I haven't tried
3 to do that typically by commercial data, but
4 it would depend on how strong the Zillow data
5 set is in the community you're looking at.

6 Q But there's not a button on Zillow
7 or a tab where it says, you know, how much is
8 PFOA affecting this value, and you click on
9 it and it tells you? Is that --

10 MS. JOSELSON: Object.

11 A I believe there -- I believe there
12 may be buttons on there that you click on it
13 and it shows disamenities and amenities. So
14 it does have that in there, but it's not
15 telling you what the -- it also isn't telling
16 you how much a second bathroom contributes
17 when you click on a house. Their algorithms
18 are not -- as far as I know, they're not
19 public.

20 It is a really cool tool that
21 you can waste hours on if you'd like to,
22 so...

23 Q Yes, I've certainly done that.

24 Were you aware that none of

1 the named plaintiffs in this case cited
2 Zillow or Redfin or any other online tool or
3 any other kind of publicly available
4 information as a basis of their opinion?

5 A I didn't. The question I was
6 asking is, can individuals express the value
7 of their homes? And I was saying yes, I
8 think they can. And there's a lot of data
9 out there that allows them to do that.

10 Whether they looked at those
11 particular sources, I don't know.

12 Q So are you telling me that these
13 plaintiffs' opinions are still reliable even
14 if they didn't look at any publicly available
15 data in support of them?

16 MS. JOELSON: Object to form.

17 A I'm not saying whether these
18 particular plaintiffs' opinions are reliable.
19 What I'm saying is that individuals are
20 capable of expressing what they believe to be
21 the value of their home, based on whatever
22 evidence they have before them.

23 The reliability is determined
24 by the trier of fact.

1 Q So you're just saying that they are
2 capable of expressing an opinion on the value
3 of their home; is that correct?

4 MS. JOSELSON: Objection.

5 A More correctly, I'm saying that
6 appraisal methods are not the only means to
7 get to the value of a home. There are other
8 ways to do it.

9 Q But you also testified that the
10 named plaintiffs are best qualified -- in
11 fact, better qualified than you -- to express
12 opinion on the value of their homes, even
13 though they didn't look at any of the
14 information that you would look at and that
15 you think is important to determining the
16 value of a home; is that correct?

17 MS. JOSELSON: Objection.

18 A Well, you asked me who was more
19 qualified to assess the value of the home,
20 these plaintiffs or me. I haven't looked at
21 the value of their homes, so I don't have an
22 opinion of the value of their homes. So, by
23 definition, they're qualified.

24 Q So they're more qualified by virtue

1 of the fact that they have an opinion?

2 A By virtue of the fact that they
3 live in the home and they believe they
4 understand what the value is and what the
5 decremented value is.

6 Q So if these plaintiffs live in the
7 home and don't rely on publicly available
8 information, is that opinion they derived for
9 the valuation of their homes more reliable
10 than the opinion that you would offer if you
11 attempted to analyze the value of their
12 homes?

13 MS. JOSELSON: Objection.

14 A Depends on what method I was able
15 to apply, what information I had available to
16 me.

17 But I haven't been asked to do
18 that. I'm just saying that they have the
19 legal right and the information before them
20 to make those determinations.

21 Q So you're offering a legal opinion?

22 A No, it's pos -- it's plain language
23 of the law, says they can testify.

24 Q I really don't understand this,

1 because at the beginning of this deposition,
2 you told me that you think that economists
3 are better at evaluating home values than
4 appraisers because economists rely on
5 objective data rather than subjective
6 considerations; is that correct?

7 MS. JOELSON: Objection.

8 A In part, yes.

9 Q And yet you're saying that
10 individual homeowners, even if they rely on
11 no objective data, are more reliable in their
12 estimates of their home value than the
13 opinions you would proffer on that issue; is
14 that correct?

15 MS. JOELSON: Objection.

16 A That's actually not what I said.
17 You asked who would be more reliable, me or
18 them, and I said them, because I haven't
19 tried to do it.

20 If I was able to do a model, I
21 might -- I might determine -- my opinion
22 would be that I'm more reliable. But that's
23 not what I'm doing right now. I'm just
24 saying, there's no reason to believe that

1 they can't offer those opinions.

2 Q I'm wondering, are they more
3 qualified than you are to opine on their
4 property value?

5 MS. JOSELSON: Objection.

6 A Qualified in what sense? I mean,
7 do they have -- by training? By the analysis
8 they conducted?

9 Q In any and every respect, on
10 balance, are the plaintiffs --

11 A And I also don't know -- I don't
12 know anything about these individual
13 plaintiffs or the basis of their -- of their
14 estimates, so I don't think I can answer that
15 question.

16 Q Would -- so you have no basis to
17 think that these plaintiffs are more
18 qualified than you are with regard to
19 offering an opinion on the value of their
20 homes?

21 A I've already said, by definition,
22 they're more qualified at the moment, because
23 I haven't tried to express a value of their
24 home.

1 And they'll have to present
2 their opinion and they'll have to -- the
3 judge will have to determine whether he
4 accepts it.

5 (Exhibit 1 marked for
6 identification.)

7 MS. JOSELSON: I'm just
8 noting, 3:15.

9 MR. WILSON: We'll finish up
10 this line of questioning, and then we'll take
11 a break.

12 BY MR. WILSON:

13 Q So, Mr. Unsworth, the court
14 reporter has handed you what's been marked as
15 Exhibit 8 to your definition -- sorry, to
16 your deposition.

17 And I'm going to represent to
18 you that this is a chart that we prepared
19 that provides a summary of evidence in this
20 case; that it includes each named plaintiff's
21 property, their self-reported unimpaired
22 estimate of their property's value, their
23 self-reported impaired estimate of the value,
24 both of those being derived from the

1 plaintiffs' fourth amended initial
2 disclosures.

3 And then compared to that, the
4 highest estimate on Zillow of their
5 property's value, historically, and the
6 highest estimate of their property's value on
7 Redfin, historically, along with a date of
8 that valuation.

9 Does how I described this
10 document -- do you understand what it's
11 reflecting?

12 A Yes, based on your definition, I
13 would say. I haven't seen this before, so...

14 Q So --

15 A Unless I missed it, it wasn't in
16 any of the experts' reports.

17 Q No, this is the first time that
18 we've proffered it, though it's a summary of
19 data that is referred to elsewhere, and it
20 has been publicly disclosed.

21 This is essentially a summary
22 of evidence that's in this case.

23 A Including the Redfin and Zillow
24 estimates?

1 Q Insofar as your report referred to
2 Zillow and Redfin and those are publicly
3 available sources of information.

4 A But these data themselves weren't
5 in one of the experts' reports?

6 Q No.

7 A Okay.

8 Q So if you take a look at plaintiff
9 Knight, the bottom column, just by way of
10 example, plaintiff Knight's estimate of the
11 value of his home before the contamination --

12 A Mm-hmm.

13 Q -- or the alleged contamination was
14 as high as \$370,000. And yet the Zillow and
15 Redfin estimates for the highest value are
16 substantially below that; is that correct?

17 MS. JOELSON: Objection.

18 A I don't know what "substantially"
19 means there. They are less than.

20 Q By at least 20,000 and as much as
21 40,000 or more below Mr. Knight's estimate;
22 is that correct?

23 MS. JOELSON: Objection.

24 A For the self-reported unimpaired?

1 Q Yes.

2 A Yes, I'd get a calculator and check
3 you, but yes.

4 Q And taking a look in general, would
5 you say that there's a wide variance between
6 the self-reported unimpaired and impaired
7 estimates of these plaintiffs' properties and
8 the publicly available estimates on Zillow
9 and Redfin of their values?

10 MS. JOELSON: Objection.

11 A I would say there are differences.
12 I don't know what the generation process was
13 for these data, you know.

14 The numbers are different.
15 Some of them are actually pretty close.

16 Q So some of them are close and some
17 of them are off by a wide margin; is that
18 correct?

19 MS. JOELSON: Objection.

20 A Well, you also haven't adjusted for
21 the passage of time. Some of these estimates
22 are a decade old.

23 Q Did these plaintiffs adjust for the
24 passage of time in their opinions?

1 A I would assume so, yes, they -- if
2 they believe the market's gone up, they've
3 added to their home values.

4 But if you're a research
5 analyst working for me, I would send you back
6 to adjust them for the passage of time.

7 Q So just for example, take a look at
8 plaintiff Hausthor, the top row. And the
9 column indicates that the highest valuation
10 on Zillow is from 2011 of 282,000.

11 A Mm-hmm.

12 Q So by inference, then, the values
13 since then reported on Zillow is lower; is
14 that correct?

15 MS. JOELSON: Objection.

16 A I'm not sure I followed that at
17 all.

18 Q So that means that after that point
19 in 2011, of January, that the Zillow value
20 for Mr. Hausthor's home has gone down; is
21 that correct?

22 MS. JOELSON: Objection.

23 A I'm not following you at all.
24 What's reported here is the January of 2011

1 Zillow value of 282,000. I don't know what
2 Zillow is reporting it for today.

3 Q And I'm telling you that this
4 column describes the highest estimate of the
5 value that was on Zillow historically.

6 A Okay, sorry. I did not follow
7 that. Yes.

8 Q So necessarily, assuming that we're
9 making accurate representations here --

10 A Yes.

11 Q -- then necessarily, the values
12 after that time would be lower; is that
13 correct?

14 MS. JOELSON: Objection.

15 A Yes. And I don't know by how much.
16 I don't know.

17 Q And yet Mr. Hausthor says that
18 before PFOA was discovered in the water,
19 which was in 2015 and '16 --

20 A Mm-hmm.

21 Q -- that his home was actually worth
22 \$300,000, more than has ever been reported
23 historically on Zillow; is that correct?

24 MS. JOELSON: Objection.

1 A I'm sure he may know of some
2 attribute of his home that is not available
3 to Zillow. I don't know why those
4 differences would exist or -- you'd have to
5 know something about the algorithms Zillow
6 uses and you'd have to know something about
7 what process he's using, but he would be the
8 one to judge that.

9 Q And you didn't look at the process
10 that he used or that any of the plaintiffs
11 used in developing these opinions, did you?

12 A No, no. I already said that.

13 Q So as between Zillow, the
14 plaintiffs and you, who is most reliable in
15 establishing the value of these homes?

16 MS. JOELSON: Objection.
17 Asked and answered.

18 A I've already said, I haven't tried
19 to estimate the value of these homes, so any
20 of those sources, by definition, would be
21 more reliable.

22 Q In the event of a conflict between
23 Zillow and the plaintiffs, in your
24 professional judgment, is there one that's

1 more reliable than the other?

2 A On -- with a sample this small, no,
3 I wouldn't say in my professional opinion I
4 could say that.

5 I would -- with a sample this
6 small, I would consider whether there's some
7 explanatory basis for the difference,
8 assuming there is a difference once I look at
9 the data and update it for 2018 values.

10 Q And if you were to try to do an
11 opinion on the values of these properties,
12 would you do a better job than the plaintiffs
13 and Zillow did in this case?

14 A Well, I'm not usually asked to get
15 the individual value of properties. That's
16 not typically what I'm asked to do. I'm
17 asked to estimate diminution or increase in
18 property values due to an amenity or a
19 disamenity.

20 I'm not usually asked -- I'm
21 not in the business of estimating individual
22 property values.

23 Q Because, in general, economics, as
24 a discipline, is suited more to those

1 large-scale changes based on large data sets
2 rather than individual property values; is
3 that correct?

4 MS. JOSELSON: Objection.

5 A Typically, the economists prefer to
6 use large-scale data sets, yes, and then
7 control for factors within those data sets
8 quantitatively.

9 Q And that's why --

10 A And I should -- I should correct
11 that. The -- what -- where that statement is
12 not complete is that those same tools are
13 used by appraisers. They just choose whether
14 they're going to use them or not.

15 Q But the question of -- well, what
16 you just described, that's one of the reasons
17 why, when a bank wants to decide whether to
18 give someone a loan on their home, they
19 doesn't commission an econometric hedonic
20 analysis.

21 They pay an appraiser; is that
22 correct?

23 MS. JOSELSON: Objection.

24 A The -- that's a long answer. So

1 banks conduct appraiser -- appraisals because
2 typically they're selling blocks of
3 mortgages, and the folks buying those blocks
4 of mortgages want to know that these are
5 arm's-length transactions, so they're --
6 that's why they're doing it.

7 There are people who do mass
8 appraisal analyses to determine whether there
9 are patterns that don't make sense, so you
10 could do mass appraisals for that reason and
11 spot problems in markets where mortgages
12 might be underwater.

13 Q But the reason that financial
14 institutions, whether they are issuing or
15 selling mortgages or purchasing them, the
16 reason that they use appraisals rather than
17 econometric analyses is that appraisals are
18 better suited to determine the value of a
19 specific home than an econometric analysis;
20 is that correct?

21 MS. JOELSON: Objection.

22 A I don't know -- I'm not sure why
23 they do. I think it probably has more to do
24 with history and tradition. To avoid

1 investing in a mortgage that may not be based
2 on an arm's-length transaction, banks have
3 traditionally used appraisers.

4 I don't know why you couldn't
5 use an econometric model to do that.

6 Q Are you aware of any published
7 literature that expresses that econometric
8 analyses rather than appraisals should be
9 used in the issuance and sale of mortgages?

10 A I would have -- no, not in
11 individual mortgages. I'd have to go back
12 and look at the literature on whether mass
13 appraisal was able to detect problems in --
14 for example, during the Great Recession, that
15 weren't picked up by individual prices.

16 Q So I'm going to represent to you
17 that Mr. Knight had his home appraised in
18 January of 2017 -- this is after the
19 discovery of PFOA -- and the appraisal came
20 back at \$300,000.

21 Do you have any view on why
22 his personal estimate of the unimpaired value
23 of his home is so much higher than that?

24 MS. JOELSON: Objection to

1 the form and lack of any proper basis, but
2 you can attempt to answer.

3 A I have no idea why he thought the
4 numbers -- I don't know anything about the
5 appraisal, and I don't know what he based his
6 estimate on.

7 Q Now, thinking a little bit more
8 about Mr. Knight, he claims a diminution in
9 value here that's in the range of 110 to
10 \$120,000 that he attributes to PFOA, but
11 he --

12 Again, he got that appraisal
13 for \$300,000 after the discovery of PFOA in
14 2017, and that's inconsistent with his
15 opinion on the \$120,000 reduction in value;
16 isn't that correct?

17 MS. JOSELSON: Objection.

18 A His opinion is different. I don't
19 know whether the appraiser took into account
20 the PFOA.

21 Q Would PFOA have been a relevant
22 consideration in the appraisal?

23 MS. JOSELSON: Objection.

24 A I would assume so, but I still

1 don't know whether he took it into account.

2 Q Should Mr. Knight have disclosed
3 PFOA in connection with the appraisal?

4 MS. JOELSON: Objection.

5 A I would hope a qualified appraiser
6 would know that was the situation in the
7 community and Mr. Knight would need to review
8 it.

9 And he wasn't selling the
10 home. He was getting it appraised.

11 Q So if he was going to get a home
12 equity line of credit on that home and he was
13 going to use that appraisal to take advantage
14 of his home equity, and after the fact, he
15 was awarded the \$120,000 that he claims as
16 diminution-in-value damages, wouldn't that
17 essentially constitute a double recovery,
18 since he got to use his equity with the home
19 equity line of credit and also recover for
20 diminution in value?

21 MS. JOELSON: Objection.

22 A Only if you don't understand
23 accounting. When he took the home equity
24 line of credit, he has to pay it back. His

1 balance sheet didn't change. He has debt
2 against his home, and he owes money. He has
3 the money, but he has debt against his home.

4 So only in a world where you
5 don't understand accounting would that be
6 double recovery.

7 Q But I'm saying that where the
8 evaluation of the appraisal is inconsistent
9 with his opinion on the impaired value of his
10 home, where the appraised value is
11 significantly higher than his estimate.

12 Then doesn't he have a double
13 recovery?

14 MS. JOELSON: Objection.

15 A No.

16 Q Why not?

17 A I already said, when he borrowed
18 the money, he has to pay it back. He wasn't
19 net better off by that amount. He has to pay
20 the money back. So there's no double
21 recovery. That's just nonsense.

22 Are we coming up on a break
23 or~--

24 Q Yes, we can take a break.

1 A Okay. Thank you.

2 THE VIDEOGRAPHER: The time is
3 3:28. We are going off the record.

4 (Recess.)

5 THE VIDEOGRAPHER: We are back
6 on the record. The time is 3:46 p.m.

7 BY MR. WILSON:

8 Q So, Mr. Unsworth, I think we have
9 briefly discussed this before, but I just
10 wanted to make sure we're clear on it.

11 When you have provided an
12 opinion on how -- let me rephrase that.

13 Is it correct that you
14 provided an opinion on how the added cost you
15 attribute to the transition to municipal
16 water would be capitalized into the value of
17 the class members' homes; is that correct?

18 A In this case?

19 Q Yes.

20 A Yes, I have opined on that, yes.

21 Q And the individual plaintiffs have
22 offered their own opinions on the total
23 amount of diminution in value that they
24 believe they have experienced in this case;

1 is that correct?

2 A From all factors, yes.

3 Q And their opinions of the
4 diminution in value they've experienced are
5 larger than your estimates of the capitalized
6 costs of the transition to municipal water;
7 is that correct?

8 MS. JOELSON: Object.

9 A As I generally understand their
10 estimates, yes.

11 Q So without with regard to the
12 reliability of either their opinions or your
13 opinions, is it fair to say that any ultimate
14 award or determination of diminution in
15 value, that if we were going to award the
16 plaintiffs their claims, we'd have to deduct
17 from it your estimate of the capitalized
18 value of those added costs?

19 MS. JOELSON: Objection.

20 A It would depend on what's been
21 awarded, so it would depend on how the game
22 comes out at the end of the day.

23 Q But it would be double-counting to
24 award the full value that the plaintiffs

1 claim and also to award the amount that
2 you're purporting to capitalize into their
3 home value of added costs; is that correct?

4 MS. JOSELSON: Objection.

5 A I would want to hear from the
6 plaintiffs as to what was -- what they were
7 considering in their estimates. I don't know
8 enough about that, but -- but I -- it would
9 not be unreasonable if the entire dollar
10 amount was awarded for all those categories
11 to consider, whether you might need some
12 adjustment.

13 Q Is there any circumstance in which
14 it would be appropriate to award the entire
15 diminution value that the plaintiffs claim
16 and then also the capitalized added costs
17 that you've calculated?

18 A Sure, if the plaintiffs didn't know
19 that they were -- that they were going to
20 incur added cost. I don't know what
21 information they had when they made these
22 estimates.

23 It would also be true that if
24 any of these plaintiffs didn't have a well,

1 there wouldn't be any -- obviously wouldn't
2 be any overlap, right? So...

3 Q Would the plaintiffs accurately
4 have determined their own diminution in value
5 if they ignored those added costs?

6 A I would think they should have
7 incorporated them.

8 Q So assuming that they were able to
9 offer a reliable opinion, they should have
10 incorporated those added costs; is that
11 correct?

12 A In that hypothetical, yes.

13 Q So you described Mr. Phillips'
14 analytical approach in this case as the
15 "appraisal" technique.

16 How would you define the
17 "appraisal" technique?

18 A I'm using that term to separate it
19 from an econometric technique. So the
20 appraisal technique. As I mentioned earlier,
21 appraisers have a set of rules that are
22 followed that allow them to basically do the
23 same thing that economists do, which is
24 compare a property which is the subject

1 property to a set of controls.

2 And so there's a set of rules
3 they follow to identify what those controls
4 should be and how to adjust them and then
5 determine whether or not --

6 For example, one of the things
7 you can do is determine if a -- if a property
8 that's been purchased by a party, whether the
9 price seems to be too high relative to
10 market, and therefore there might not be an
11 arm's-length transaction there, so...

12 Q Are you aware of generally accepted
13 appraisal methodologies for appraising
14 properties impacted by environmental
15 contamination?

16 A I'm aware of a number of papers
17 that discuss a range of approaches that can
18 be used by appraisers to get at that problem.

19 Q Are you familiar with the Appraisal
20 Standard Boards Advisory Opinion 9?

21 A I think that's the one I cite, but
22 yes.

23 Q Are you familiar with the Appraisal
24 Institute Guide Note 6?

1 A Not while I sit here, no, but...

2 Q Are you familiar with the paired
3 sales method of evaluating potential change
4 in market value?

5 A So there's two different uses of
6 that term.

7 So, as I understand it,
8 appraisers use that term differently than
9 economists. So you could have large-volume
10 data that you can do paired sales analysis
11 on, and you can -- which is effectively what
12 a repeat sales model is, is the pairs itself,
13 and then you can have an appraiser approach
14 that uses paired sales.

15 Q Have you reviewed any articles or
16 textbooks regarding that use of that method
17 by appraisers?

18 A Probably over the years, yeah.

19 Q But none are cited in your report;
20 is that correct?

21 A I don't believe so.

22 Q In your own words, can you describe
23 the paired sales method of analysis by
24 appraisers?

1 A As I understand it, you're trying
2 to find properties that exhibit reasonably
3 similar enough attributes that you can opine
4 as to whether the property of interest -- the
5 price of it falls within the bracket of
6 the -- of the other properties, of the prices
7 of the other properties, all of which are
8 observed from the market.

9 Q You state in your report that the
10 EPA's guidelines for preparing economic
11 analyses notes the availability of hedonic
12 techniques and other methods, e.g., stated
13 preference, for monetizing environmental
14 factors.

15 Is one purpose of the EPA
16 guidelines to evaluate communitywide effects
17 of environmental factors or impacts on
18 property values?

19 A Yes.

20 Q Do the EPA guidelines evaluate the
21 effects of environmental factors on
22 individual property values?

23 A They could be used for that
24 purpose. Typically, EPA is more interested

1 in the net benefits to society of
2 improvements in environmental quality.

3 Q Do the guidelines describe the
4 method for evaluating the value of individual
5 properties?

6 A As I said, you could use the
7 methods that are described there to do that.
8 I don't know why you couldn't.

9 Q Do the EPA guidelines describe a
10 method that they identify as suitable for
11 that purpose?

12 A Well, they identify several methods
13 that can be used to understand the importance
14 of environmental quality in real property
15 values.

16 As I said, you could apply
17 that individual -- EPA isn't interested in
18 that problem, so I wouldn't expect that they
19 would be commenting on that.

20 Q Are you aware of any peer-reviewed
21 published literature that identifies a method
22 of adapting the EPA guidelines for use in
23 determining the values of individual
24 properties?

1 A Well, not that I'm aware of. I
2 don't think it's something that's been -- EPA
3 is not interested in that problem.

4 Q So taking a look at page 6 of your
5 report, you state that Mr. Phillips's opinion
6 is inconsistent with Dr. Jackson's published
7 work, under the second bullet on that page.

8 A Mm-hmm.

9 Q Now, without providing a title, you
10 referred to a 2001 article in which
11 Dr. Jackson addresses the use of "the hedonic
12 property valuation method."

13 Do you happen to be aware of
14 the specific article by Dr. Jackson that
15 you're referring to?

16 A It should have been cited here, but
17 I -- yes, it...

18 It's either a typo -- should
19 be 2010 -- or it's an article I forgot to
20 cite.

21 Q Let's take a look at page No. 9 of
22 your opinion.

23 The last paragraph on this
24 page says, "Dr. Jackson presents the opinion

1 that the" -- excuse me, "that the...
2 properties within the proposed class are too
3 diverse in location, ownership, property type
4 and characteristics, and the environmental
5 issues in the area are too variable for
6 classwide aggregation of properties for the
7 purpose of uniformly estimating a diminution
8 in value.' "

9 Q Did I read that correctly?

10 A Yes, you did.

11 Q As I understand your report, you
12 don't challenge this quote by Dr. Jackson.

13 Do you agree with it?

14 A Well, I -- I thought I actually did
15 challenge whether Dr. Jackson is right, that
16 estimation of losses across a large number of
17 properties couldn't be accomplished
18 efficiently and effectively, rather than
19 going property by property.

20 I don't entirely disagree with
21 him. I mean, he is worried about class
22 certification here, and I note up front that
23 that's apparently not at issue.

24 But I don't necessarily agree

1 with him that he's presented a convincing
2 argument that you couldn't address losses to
3 groups of properties here, effectively.

4 Q Now, on the next page, you say,
5 beginning of the first full paragraph,
6 "Unfortunately, Mr. Phillips does not explain
7 how these factors considered to be key to
8 sound analysis by Dr. Jackson are considered
9 in his appraisal analysis."

10 Did I read that correctly?

11 A Yes.

12 Q So in the quote from Dr. Jackson
13 above, he said that these factors were too
14 individualized to permit classwide
15 aggregation of properties for the purpose of
16 uniformly estimating diminution in value; is
17 that correct?

18 A That's correct.

19 Q Was Mr. Phillips attempting
20 classwide aggregation of properties for the
21 purpose of uniformly estimating diminution in
22 value?

23 A No, but he doesn't have to be. If
24 Dr. Jackson believes these factors affect

1 property values, you want to consider them,
2 or determine formally that they don't matter.

3 Whether it's a class basis or
4 individual property, you still have to
5 consider factors you think are important.

6 Q So on page 10 of your report, you
7 quote from Dr. Jackson's 2010 article, Real
8 Property Valuation Issues in Environmental
9 Class Actions, which states, "One technique
10 that has been increasingly employed to
11 estimate environmental risk effects is
12 multiple regression analysis. This technique
13 can be properly employed to estimate average
14 impacts to groups of properties that share
15 similar characteristics and are similarly
16 situated."

17 Did I read that correctly?

18 A You did.

19 Q Do you agree that multiple
20 regression only estimates an average impact?

21 A Well, the regression estimates an
22 average impact, and you can then apply that
23 regression to a set of properties or to
24 individual properties, if you wanted to, by

1 entering their attributes.

2 Q But the regression itself only
3 estimates an average impact; is that correct?

4 A I wouldn't use the term "only."
5 The regression itself uses all the data to
6 develop a relationship between an attribute
7 and price for the data set that you have.

8 There's other explanatory
9 variables in there, so you can back those in
10 to the actual property and see what you
11 think, say, within a neighborhood what you
12 think the effect would be.

13 Q But the regression itself does not
14 provide a basis to determine the value of any
15 individual property, does it?

16 A I'm not sure that's true. I
17 don't -- I wouldn't say that's true. And I
18 also -- I believe in the same paper,
19 Dr. Jackson talks about a second stage, then,
20 where you take that analysis and you use that
21 analysis or other analysis to estimate --
22 basically distribute the total dollars.

23 Q So without more, a regression
24 itself is not sufficient to determine the

1 value of any individual property, is it?

2 MS. JOSELSON: Objection.

3 A I would actually believe that's
4 probably what Zillow is using, if you could
5 get to their algorithm. They're probably
6 using a regression analysis of some form, and
7 then backing the prices out for individual
8 homes.

9 They could have some more
10 sophisticated algorithm as well. This is
11 effectively what they're doing. They're
12 correlating prices with attributes.

13 Q So earlier in your opinion, the
14 beginning, you said, the plaintiffs are not
15 in fact seeking class certification for
16 purposes of establishing monetary damages
17 associated with property value diminution.

18 If that's the case, what
19 purpose does it serve to know an average
20 impact from a regression model?

21 A Well, the -- there's two -- there's
22 two things at hand here. Mr. Phillips is
23 asserting that there's no other way to do
24 this other than the appraisal technique he's

1 used. I'm taking issues with that. I said
2 there are actually other ways to come up with
3 a diminution estimate, one of which is the
4 method that Dr. Jackson talks about.

5 I've also stated, outside of
6 class certification, because I don't believe
7 that's at hand here, that there may be ways
8 to use this literature to understand the
9 expected diminution in value, that that could
10 be considered and that that might be
11 considered at a level beyond the individual
12 home, because it's not terribly efficient.

13 Q But you haven't attempted to
14 develop a model that would allow that
15 multiple regression here, have you?

16 A No.

17 Q In fact, you've indicated that the
18 timing and the current volume of sales would
19 make it difficult to do that model?

20 A In all likelihood, yes.

21 Q And at this time, you don't know
22 whether it is feasible to do that kind of a
23 model, do you?

24 A I don't.

1 Q Would the diversity or
2 heterogeneity within a class area have an
3 impact on the usefulness and reliability of a
4 multiple regression model?

5 A It could. I mean, typically, what
6 you would do is you would add dummy variables
7 or some other factor that would --

8 There's two ways you could do
9 it. You could add a dummy variable to the
10 model and that might separate the market or
11 you could run separate regressions for
12 different submarkets.

13 Q And particularly in the case where
14 there was a lot of heterogeneity in the class
15 or in the group, you would expect that the
16 hedonic model output would overestimate
17 damage for some properties and underestimate
18 it for others; is that correct?

19 A Well, by definition, the r-squared
20 says that -- says that your regression
21 analysis is not perfectly predicting the
22 value of anyone home. There's -- the
23 r-squared indicates how well you're
24 describing those relationships.

1 I would say that the
2 heterogeneity would increase the variance of
3 your estimate. It doesn't necessarily render
4 the coefficient to be incorrect. It just
5 increases variance.

6 Q And the regression model doesn't
7 provide a means that would be able -- that
8 would allow you to tell which specific
9 properties were subject to overestimated
10 damage and which were subject to
11 underestimated damage; is that correct?

12 MS. JOELSON: Objection.

13 A So -- so when you use -- say you're
14 using a really simplistic model. You're
15 using price as a function of a bunch of
16 attributes and you do a multiple regression.
17 That -- the regression analysis that comes
18 out of that tells you what that function is,
19 how each of those variables go into the
20 price.

21 You actually can do a
22 residuals plot and look and see which --
23 which observations you are more or less
24 accurately estimating. And it's not unusual

1 to do residuals plots, because you're looking
2 for patterns and you're also looking for
3 extreme outliers to figure out, for example,
4 whether you misentered data or something.

5 So I would say from a
6 practical standpoint, you're not correct.
7 You can do that, and often you do in
8 regression analysis.

9 Q Do you believe that all properties
10 within the proposed class area share similar
11 characteristics and are similarly situated?

12 MS. JOELSON: Asked and
13 answered.

14 A I think they share a lot of similar
15 characteristics, and I think they share a lot
16 of situational similarities. Situational
17 similarities.

18 Q So I'd like you to think about the
19 last time you purchased a home. When you
20 were considering whether to buy that home,
21 how much to pay, did you consider the size of
22 the lot?

23 A Yes.

24 Q Did you consider the size of the

1 garage?

2 MS. JOSELSON: I'm going to
3 object to this line, but you can answer.

4 A I don't remember.

5 Q Did you consider --

6 A I'm -- I'm older, so I haven't
7 purchased a home in a while, so...

8 Q Did you consider the age of the
9 home?

10 A No.

11 Q Did you consider the size of the
12 living area?

13 A Actually, that's wrong. I did
14 consider the age of the home, and I
15 considered the size of -- I considered all
16 the factors that describe the home.

17 Q That would include just, for
18 example, number of bedrooms, number of
19 bathrooms, how well it was maintained?

20 A Yes.

21 Q Did you consider the overall
22 condition of the property?

23 A Yes.

24 Q Did you consider the decor and

1 whether you or your wife might want to
2 repaint?

3 A I would we assume we would repaint,
4 so I wouldn't consider the decor, no.

5 Q Did you consider whether you might
6 want to replace flooring, cabinets, kitchen
7 appliances, bathroom fixtures, et cetera?

8 A If I were looking at a property, I
9 would consider whether I would need to do
10 that to be comfortable in the property, and
11 that might determine how much I'm willing to
12 pay for it.

13 I would also consider the
14 market, because I obviously have to meet the
15 next bidder's price.

16 Q So given all these considerations,
17 is it fair to say that it was important for
18 you to visit the home and tour the interior
19 before you decided to purchase it?

20 MS. JOELSON: Same objection?

21 A In one case, yes. And in one case,
22 no.

23 Q And it was important for you to
24 also determine how much you would pay for it,

1 to visit the home; is that correct?

2 MS. JOSELSON: Continuing
3 objection. Assumes facts not in evidence.

4 A Yeah, we did visit the home so,
5 I -- yes. I don't think I would buy real
6 property without seeing the property.

7 Q Because without visiting the
8 property and touring the interior, you can't
9 assess many of the factors that determine
10 whether you're going to buy and how much
11 you're going to pay; is that correct?

12 A No -- well, it's -- you can't
13 determine whether it has the factors -- the
14 attributes you're looking for. How much
15 you're going to have to pay is a market
16 question. It's who you're competing with.

17 So you can have your own
18 opinion as to market value, but you have to
19 compete with others.

20 Q But it's determinative of how much
21 you are willing to pay what the condition of
22 the interior is?

23 A It may be determinative of that,
24 yes.

1 Q Would you say that a potential
2 buyer's interior inspection of a home for
3 sale is a critical part of the buying
4 decision and how much they're willing to pay?

5 A I haven't studied what the buying
6 decisions are based on.

7 Q Do you agree a hedonic model
8 doesn't include a variable that accounts for
9 the interior condition of the property?

10 A I am aware of hedonic models that
11 do have condition of property as one of the
12 variables. That's, for example, commonly
13 done for -- I believe in Vermont, listers use
14 what amounts to hedonic equation that
15 includes condition of property in determining
16 the market value for taxing purposes.

17 So I'm not sure if that's
18 true. I would have to say, I don't -- I
19 don't believe that's true, but I'd have to
20 look at what the listers use. And it likely
21 varies across communities.

22 Q In forming your opinions in this
23 case, did you speak with any of the named
24 plaintiffs?

1 A No.

2 Q Did you speak with a local realtor?

3 A No.

4 Q Did you speak with a local
5 appraiser?

6 A No.

7 Q Did you speak with any other
8 individuals about Bennington market
9 conditions?

10 A No.

11 Q So on page 9 of your report --

12 A This is still Phillips and Jackson?

13 MS. JOELSON: Exhibit 4.

14 Q Yes. You state, "It is reasonable
15 to ask whether buyers in the market for a
16 home in the area would make such fine
17 distinctions in considering a purchase and
18 thus whether the analysis conducted by
19 Mr. Phillips is biased by this factor."

20 And that factor referred to
21 there is the zone -- proximity to the zone of
22 contamination?

23 A That's correct.

24 Q So do you think buyers have a

1 preference for properties inside or outside
2 of the proposed class area?

3 A I would expect that buyers would --
4 all else equal, you would think a disamenity
5 would be considered negative, and I would
6 expect they would consider the zone of
7 contamination to be a disamenity.

8 Whether they can refine that
9 down and whether they would be willing to
10 refine it to this level of detail, I'm a
11 little skeptical.

12 I would -- I would prefer
13 controls that were a little more obvious.

14 Q So if buyers have a real preference
15 one way or the other, is the information that
16 they need to make that determination publicly
17 available?

18 A That's a good question. I don't
19 know how available that information is. I
20 mean, it's publicly available. I've gotten,
21 so it's in the public domain.

22 Q So in Footnote 11 of page 11 of
23 your report you state that, "The impact of
24 disamenity, such as presence of" --

1 MS. JOELSON: Wait a minute.

2 A Just give me a moment here.

3 Yes, go ahead.

4 Q So Footnote 11 of page 11 says,
5 "The impact of a disamenity, such as the
6 presence of a hazardous waste site, would be
7 expected to be a negative function of a
8 distance to the site."

9 Did I read that correctly?

10 A You did.

11 Q Would you agree that the same logic
12 applies to the proposed class area here?

13 A It wouldn't surprise me if distance
14 to the zone of contamination matters
15 ultimately propertywide as a disamenity.

16 Q Would the impacts be a function of
17 distance to the source of PFOA?

18 A No, I wouldn't expect that. In
19 this particular case, I would not expect
20 that. It's not like a plume. It's not --
21 the discharge point isn't there, so the
22 concentrations don't -- don't show up higher
23 around that facility, the same way you would
24 expect with, like, a groundwater plume.

1 This is more of a box. It's
2 not a -- it's not a plume.

3 Q Would impacts vary based on whether
4 PFOA is present at the property in issue?

5 A I think it would depend on the
6 neighboring properties.

7 Q So it would depend both on
8 neighboring properties and on whether PFOA is
9 detectable in the groundwater at that
10 property; is that correct?

11 A And whether the person was required
12 to close the well and whether they're going
13 to be within the zone that is -- requires
14 that no wells be dug, all those factors.

15 Ultimately, it will affect
16 the -- would you think would affect whether
17 or not the property would be affected by --
18 by PFOA.

19 Q So Footnote 12, in your opinion,
20 says, "While the EPA study found that home
21 prices might rebound once a remedy was put in
22 place, there is no economic theory that would
23 support prices rising as a result of
24 proximity to a disamenity such as

1 contaminated groundwater."

2 Did I read that correctly?

3 A You did.

4 Q Do you agree that proximity to
5 groundwater with PFOA is only one factor
6 among all the characteristics and attributes
7 considered by the purchaser of a home?

8 A Yes, and I don't know what that
9 question has to do with what you just read.

10 Q In Footnote 13, you say, "Note that
11 the timing of when losses are calculated may
12 matter. For example, if damages are properly
13 expressed at the time of an adverse harm, the
14 fact that the prices may recover some day
15 will be irrelevant to the damage claim."

16 Did I read that correctly?

17 A You did.

18 Q Wouldn't that matter only if the
19 class member was trying to sell their home
20 during the period of temporary diminution?

21 MS. JOELSON: Object.

22 A That's not the -- that's not the
23 point I'm making here. The point I'm making
24 here is, I don't know what the rules are as

1 to when you calculate loss, so I don't know
2 if the court allows you to recover the damage
3 that happened at the event or whether it
4 recovers it as of the day of trial, or some
5 other date.

6 So it -- it would matter which
7 date certain you're required to express
8 damages. That's all I'm saying there. It's
9 somewhat of an academic point here, because
10 I'm also saying that there is no true remedy
11 here, so I'm not expecting prices to rebound
12 the way you might if you, say, removed a
13 landfill or more traditional remedy.

14 Q Would you agree that a property's
15 lot size could be relevant to its value?

16 A Yes.

17 Q The square footage living area is
18 relevant?

19 MS. JOSELSON: Asked and
20 answered.

21 A Yeah, I think we went through ten
22 factors earlier that I thought might matter.

23 Q Let me give you just a couple more
24 that maybe we haven't covered.

1 The site improvements are
2 relevant?

3 A Could be. They also could be
4 negatives.

5 Q The topography is relevant?

6 A Could be. Positive and negative.

7 Q Whether the basement is finished or
8 unfinished is relevant?

9 A Could be.

10 Q Do you know whether buyers in
11 Bennington would have paid more or less for a
12 home that's on municipal water as opposed to
13 a private well?

14 A I don't know that, and I point that
15 out in my report. That's not known to any of
16 us.

17 Q Did you try to check?

18 A We did not conduct an analysis to
19 control for that.

20 Q Can you describe benefits transfer
21 analysis?

22 A So benefit transfer is the use of
23 information from existing studies conducted
24 in particular contexts as applied to a new

1 context for which you don't have primary
2 data.

3 So an example would be -- a
4 typical benefit transfer in my business would
5 be the value of a day of sportfishing down at
6 Coeur d'Alene. I may not study sport fishing
7 down at Coeur d'Alene, but I can look at what
8 people paid to fish in similar areas and
9 infer what the value the -- what the value of
10 their sportfishing worth.

11 Q Is benefits transfer an
12 acceptable -- or, excuse me, an accepted
13 methodology for determining the market value
14 of individual properties?

15 A I would -- when you say "market
16 value," you mean, like, someone deciding what
17 to put their price -- their home on the
18 market for?

19 Q Determining -- I think as you
20 defined market value earlier, which I think
21 you said is the price a willing buyer/willing
22 seller will agree on.

23 A So you're trying to forecast what
24 the value of what a property would be?

1 Q Yes.

2 Is benefits transfer a
3 generally accepted way of doing that?

4 A I think that's kind of what the
5 appraisal approach is. It's a form of
6 benefit transfer. It's taking information
7 from other sites and applying it to the one
8 at hand.

9 Q So the appraisal method is, you
10 would say, a particularized version of a
11 benefits transfer analysis?

12 A I would say loosely construed.

13 Q If you're applying the results of
14 one study area to a new study area, how do
15 you make adjustments for the difference in
16 the real estate markets?

17 A Well, I think the example I give
18 here from Dr. Kopp's analysis in Illinois,
19 outside Chicago, was to consider factors that
20 are believed to affect the extent to which a
21 disamenity will effect home values.

22 So you have a set of
23 attributes, and you adjust based on that.

24 Q How do you account for different

1 market conditions since the time that the
2 study was performed and the time at which
3 you're trying to make the comparison?

4 A So you -- yeah, I guess I'm not
5 sure what you mean by that. You mean
6 different market conditions at your -- at
7 your -- the sites where the studies were done
8 or the sites where you're applying it to?

9 Q At the sites where -- the
10 difference between the site where the study
11 was done and where you're applying it to in
12 terms of the timing, in the sense that the
13 real estate market, as to the extent it has
14 national ups and downs, may have varied from
15 the time the study was done to the time
16 you're trying to apply it.

17 A Yes, I guess a more traditional
18 issue of adjustment would be whether the
19 market is, you know, a very competitive
20 market versus one that's less competitive.

21 And that's, of course, the
22 same thing with a mark -- with cycles in the
23 economy. There are time periods where real
24 estate markets are more competitive or less

1 competitive.

2 So you could adjust for that.
3 I think you -- I would be more concerned with
4 whether the market you're looking at is
5 similar to the markets that were studied in
6 the literature.

7 Q How do you adjust for the presence
8 of different contaminants or alleged
9 contaminants at the study site and the one
10 that you're trying to compare it to?

11 A The studies that are done, I've not
12 seen them make a distinction as to the type
13 of contaminant. You would -- you would think
14 something that's less familiar -- I mean,
15 there's a good literature that says that
16 risks that are less familiar are more of
17 concern to people than risks that are
18 familiar.

19 So you might, for example,
20 believe that a plume of gasoline from a
21 leaking service station may not have the same
22 effect on a market that a plume of PFOA that
23 residents aren't as familiar with might --
24 might find.

1 So you would consider those
2 factors in your transfer in deciding how
3 confident you are in your transfer.

4 Q How do you adjust for a different
5 mix of contaminated versus uncontaminated
6 properties in conducting a benefit transfer
7 analysis?

8 A So typically, the -- you -- again,
9 you would look to the studies and how they
10 were done and how they measure the
11 disamenity.

12 So you would look to see
13 whether, for example, is it a distance issue,
14 distance from a disamenity, so like distance
15 from a landfill, or is it effectively you're
16 right at the landfill, in other words, you're
17 right on top of the contamination.

18 I think would you have to --
19 where there's a patchwork of observations of
20 contamination, I think you'd have to answer
21 the question whether you believe the market
22 is -- takes -- is that literal about the --
23 the contamination.

24 Q And how would you adjust in a

1 benefits transfer analysis for a different
2 mix of property types, ages, conditions,
3 attributes and characteristics?

4 A Again, you'd want to make sure that
5 the studies that you're looking at from the
6 literature are similar to your site, and
7 typically those are reflected in the property
8 prices, and there's usually a percentage
9 diminution that's applied.

10 So you would expect to see it
11 reflected through the property price.

12 Q So your report cites testimony from
13 Dr. Sunding in a case that involves
14 allegations of property value diminution
15 stemming from PFCs in groundwater.

16 Can you tell me what case that
17 is?

18 A It's the -- I don't actually know
19 what the common name of the case is. It's
20 out in Minneapolis, St. Paul.

21 Q Is -- do you know if it's in state
22 court or federal court?

23 A I don't.

24 Q Is the defendant 3M?

1 A Yes. But when you ask me what case
2 it was, I don't know the name of the case.

3 I --

4 MS. JOSELSON: Jones versus --
5 yeah.

6 A I know David quite well, so...

7 Q Which David?

8 A David Sunding.

9 Q Oh, okay.

10 Do you have any documents
11 associated with Mr. Sunding's opinions?

12 A I have his report.

13 MR. WILSON: Has that been
14 produced to us?

15 A Yes.

16 Q Our understanding is that it
17 hasn't.

18 MS. JOSELSON: Well, do you
19 want to take a break?

20 THE DEPONENT: That's just a
21 mistake then.

22 MR. WILSON: Well, we are -- I
23 mean, we can address that after the fact.
24 I'm very close to done, if you want to --

1 A Pretty much everyone in North
2 American Consulting has that report. I'm
3 pretty sure we turned it over.

4 Q Okay.

5 MS. JOSELSON: Yes, it's in
6 there.

7 THE DEPONENT: It's probably
8 listed as Sunding~2017.

9 MS. JOSELSON: State of
10 Minnesota versus 3M, Sunding, David, Final
11 Expert Report.

12 MR. WILSON: I have it. Okay.

13 THE DEPONENT: I believe it's
14 also on the Internet at this point, if you
15 search on it. I also know David would be
16 happy to send it to you, so yes.

17 BY MR. WILSON:

18 Q I have enough pen pals.

19 A Yeah.

20 (Pause.)

21 Q So in your opinion, are
22 environmental disamenities that are unrelated
23 to PFOA irrelevant to your analysis here?

24 MS. JOSELSON: Object to the

1 form.

2 A So I'm not conducting a property
3 analysis. So the question is whether they're
4 relevant to the -- to the matter at hand.

5 If -- I mean, a typical
6 before-after case of property diminution,
7 those factors would have to change at the
8 same time for them to be -- confound the
9 effect of the discovery of PFOA.

10 If there's always been an old
11 landfill in town or there's always been a
12 history of -- at a site where it was
13 inspected by the state or something, that
14 doesn't change, so you wouldn't expect that
15 to be correlated with the change on the date.

16 Now, if you're doing
17 comparisons, if you're going out and looking
18 at a single comparison to 35 Aces Way, you
19 obviously wouldn't compare it. If it isn't
20 near a major environmental disamenity, you
21 wouldn't want to compare it to a property
22 that is next to a major environmental
23 disamenity, because then you're not
24 controlling appropriately.

1 Q So if you identified property value
2 diminution at a specific property and then
3 discovered multiple environmental
4 disamenities at that property, would you
5 assign the cause of the diminished value to
6 only one source of contamination and consider
7 the other sources irrelevant?

8 MS. JOSELSON: Object to the
9 form.

10 A Well, as I just said, if the
11 property had issues prior to the event, those
12 were already baked into the price, then comes
13 along another contamination event, that would
14 cause a separate effect, which could be
15 observed separately, because presumably the
16 other problems are the same.

17 They -- it's like if the
18 number of bathrooms stayed the same
19 throughout the entire period, you wouldn't
20 think bathrooms were terribly relevant to
21 the -- to the change.

22 Taking a look at page 18 in
23 your report under the bold heading there.

24 MS. JOSELSON: Page 18? I'm

1 sorry?

2 MR. WILSON: 18.

3 A Mm-hmm.

4 Q You say, "Dr. Jackson's reference
5 to the appraisal literature to define what
6 analysis is required and when a property is
7 harmed is inappropriate and unsupportable for
8 use in this matter, is inconsistent with
9 sound environmental science."

10 Did I read that correctly?

11 A You did.

12 Q Can you explain why the appraisal
13 literature is inappropriate and unsupportable
14 for use in this matter?

15 A So for reasons I do not understand,
16 the appraisal literature chose to come up
17 with its own standard for when it thinks a
18 property is affected by environmental
19 contamination, and that's what's cited down
20 below.

21 And I -- this is probably
22 worth a rebuttal to the actual standards
23 board, but I don't know why appraisers or the
24 appraisal industry should be in the business

1 of deciding when property is contaminated or
2 not. That's a scientific question.

3 Q So your problem is not really with
4 Dr. Jackson, but rather with the standards of
5 the appraisal profession?

6 MS. JOELSON: Objection.

7 A Exactly. That's exactly what I
8 say. I say that his reference to that
9 literature is inappropriate and
10 unsupportable, so...

11 Q And how is the appraisal literature
12 inconsistent with sound environmental
13 science?

14 A Sound environmental science would
15 ask the question and the economic analysis,
16 and I would say appraisers should as well,
17 ask the question whether the contamination is
18 causing an effect in the market.

19 Whether it's above or below a
20 standard doesn't matter. The effect is still
21 there. So you can imagine, for example, the
22 presence of a toxic substance for which a
23 threshold has not yet been developed.

24 Good God, there's a chemical

1 that's used a lot by the military. It's not
2 perchloroethylene, but --

3 There's substances for which
4 there are no thresholds which we believe to
5 be toxic. They just haven't decided on a
6 threshold yet. And their presence, I think,
7 could affect property values. But this says
8 that you have to be above a federal, state or
9 local agency.

10 The other problem with this
11 definition is that it would vary by state.
12 So depending on the state's regulatory
13 regime, an appraiser could determine that a
14 substance at the same concentration would
15 cause a property effect in one place and not
16 in another.

17 And I wouldn't -- I just don't
18 believe that's the way markets or toxicity
19 work.

20 Q So you don't believe that the
21 economics literature supports the notion that
22 regulatory differences between states can
23 affect markets?

24 A That's so broad, I couldn't answer

1 that.

2 Clearly states' regulatory
3 programs can affect markets because of how
4 stringent they are at allowing for commercial
5 activity, for example.

6 What I'm talking about here is
7 something much simple, which is, does the
8 average property buyer solely and simply
9 consider the exceedance of a threshold, or
10 would they be bothered by the presence of a
11 contaminant more generally.

12 And I think a more objective
13 standard would be to let the market speak for
14 itself, not to let the appraisal standard
15 speak for it.

16 Q Did the appraisal standard speak
17 solely to whether substances exceed
18 environmental thresholds?

19 A Well, it says here that adverse
20 environmental conditions, generally the
21 concentration of the substance would exceed
22 regulatory limits.

23 And I just think that that's a
24 statement that -- it shouldn't be presumed

1 that the failure to exceed a regulatory limit
2 would automatically imply there's no property
3 effect, and that's what the guidelines say,
4 in effect.

5 Now, whether an appraiser
6 actually follows this or not or believes it,
7 I don't know; but this seems to be, in my
8 mind, overstepping appraisal science as you
9 move into behavioral science and toxicology
10 and all that stuff.

11 Q Does the State of Vermont require
12 any party to undertake any remedial action at
13 properties where PFOA concentrations are
14 below regulatory thresholds?

15 MS. JOELSON: Objection.

16 A I believe they're going to. In the
17 area where the wells are no longer to be
18 allowed for residential purposes, some of
19 those properties are not currently
20 demonstrating concentrations above the
21 threshold. So they're doing what you just
22 said.

23 Q But the --

24 A Because they're recognizing the

1 variability in the environment of those
2 concentrations and making prudent decisions
3 about resource management.

4 Q And so that might be a situation,
5 in your view, where there would be a unique,
6 individual factor with respect to those
7 properties that would require specific
8 consideration in a determination of market
9 value; is that correct?

10 MS. JOSELSON: Objection.

11 A I don't know how you got that
12 extension from what I just said.

13 Q Let's see if we can break it down.

14 A We were talking here about whether
15 the appraisal literature should have an
16 opinion on toxicology, and I was saying it
17 shouldn't, and that was the extent of the
18 discussion at the moment.

19 Q So I said that -- I asked whether,
20 rather, the State of Vermont would require
21 any party to take action where PFOA levels
22 are below regulatory thresholds, and your
23 response was that yes, they do, in cases
24 where, because of the variability of the

1 environment, even if PFOA is not currently
2 detected, it may be soon in the future.

3 Is that a fair statement of
4 what you said?

5 A Where there's uncertainty about it,
6 yes.

7 Q And so that would be an example of
8 a situation where you would need to
9 specifically consider that property and its
10 characteristics, because even if it's not
11 exceeding a regulatory threshold, there may
12 still be cause for concern?

13 MS. JOELSON: Objection.

14 Q Is that correct?

15 A And what I'm saying is in this --
16 in this section is that the appraisal
17 literature might imply that you should ignore
18 that property and conclude that it's not
19 going to be affected by the presence of
20 contaminants.

21 Q It seems to me the appraisal
22 literature here that are cited says that
23 generally the concentration of these
24 substances would exceed regulatory limits

1 established by the appropriate federal, state
2 or local agencies.

3 Does "generally" mean all of
4 the time?

5 MS. JOSELSON: Objection.

6 A No, but I don't -- I don't -- I
7 don't even know why they would say
8 "generally." I don't think there's any
9 evidence of that either.

10 Q So, for example, this might be a
11 case where you could reason for an
12 individualized departure from that standard;
13 is that correct?

14 MS. JOSELSON: Objection.

15 A I would depart from the standard in
16 its entirety for -- for any and all purposes
17 involving environmental contamination.

18 Q But, at a minimum, there might be
19 individual circumstances here that would
20 warrant departure from that standard?

21 MS. JOSELSON: Objection.

22 Asked and answered.

23 A I believe I didn't say that,
24 actually. I believe what I said was that I

1 would depart from it for all properties in
2 the zone of contamination, regardless of
3 whether they have contaminant concentrations
4 observed in their wells above a regulatory
5 threshold.

6 Q Let me frame it slightly
7 differently.

8 Would it be appropriate for an
9 appraiser evaluating those non-detect wells
10 under this guidance to say that this
11 constituted an appropriate exception to the
12 guidance because of the uncertainty and
13 variability in the PFOA levels?

14 MS. JOSELSON: Objection to
15 the form.

16 A I don't -- as I've already
17 mentioned, I'm not an appraiser, so I don't
18 know what the rules are for -- for
19 exceptions. I think what I was --

20 I know what I was trying to
21 get at here, is I don't think that this --
22 the appraisal guidance should form the basis
23 for whether a party can be shown to be harmed
24 or not.

1 It's a much more general
2 conclusion. I think it's the wrong science
3 to bring to the problem.

4 Q Do buyers pay attention to seller
5 disclosures?

6 A I would assume so.

7 Q If a seller's property had
8 groundwater PFOA concentrations at twice the
9 Vermont regulatory limit, do you think they
10 would have an obligation to disclose that
11 fact to potential buyers?

12 A I don't know what the law says.

13 Q So you have no -- no knowledge of
14 what disclosures are required with regard to
15 environmental conditions at a property under
16 Vermont law?

17 A Under Vermont law, no. I would --
18 I would assume that even in the absence of
19 Vermont law, you may be placing yourself at
20 risk by not revealing.

21 Q Okay. We're closing in on the end
22 here.

23 If you take a look at page 19
24 of your report, the second sentence under the

1 last bolded heading says, "The presence of
2 PFOA in groundwater throughout the Bennington
3 community is having a similar impact on all
4 residential properties in the action area."

5 Did I read that correctly?

6 A You did.

7 Q I apologize that I'm stumbling over
8 my words.

9 A That's all right. You've read a
10 lot today.

11 Q Yes.

12 How do you know this?

13 A I'm making this as a professional
14 judgment, and it's -- it's based on the bold
15 header above, which is Sound Practice in
16 Environmental Economics.

17 The -- what -- based on the
18 studies in the literature, many of which are
19 cited in Dr. Kopp's report, but there's also
20 others, have generally found that the effects
21 of contamination are uniform and have
22 definable patterns through space and time.

23 And so I would -- when I used
24 the term "similar" there I mean just that.

1 It's likely had a similar impact.

2 Q So --

3 A It's a similar disamenity across a
4 broad area, particularly when you have zone
5 of contamination that's defined, as opposed
6 to a plume or some other variable factor.

7 Q So I'm going to represent to you
8 that in the Exhibit 8 chart that we looked at
9 earlier --

10 It's the one right here.

11 A Yes.

12 Q -- that that summary of the
13 plaintiffs' individual opinions on the amount
14 of their diminution in value shows estimated
15 diminution in value ranges from 20 percent to
16 37 percent at the six properties at issue
17 here.

18 If that's so, why are these
19 self-reported impacts among the main
20 plaintiffs so varied when you claim that the
21 presence of PFOA in groundwater is having a
22 similar impact on all residential properties
23 in the action area?

24 A Well, I can think of one obvious

1 example would be that some of these folks
2 have a well and some doesn't, so I would
3 expect that to vary, because they're going to
4 have a different experience going through the
5 movement to municipal water.

6 But I would also say that it's
7 a similar impact, and I would -- I would
8 expect variability. I've also only got five
9 observations, which, from a statistical
10 standpoint, doesn't tell me anything.

11 Q So how did you have the basis to
12 claim there was a similar impact based on
13 five observations that you didn't even review
14 personally?

15 A No, I'm making this statement based
16 on the economics literature, which, I said,
17 has generally shown that there are uniform
18 patterns of property impact associated with
19 the presence of contamination.

20 Q So you're making a statement about
21 the literature, not a statement about
22 Bennington when you say that?

23 MS. JOELSON: Objection.

24 A I'm making a statement about the

1 literature as I would expect it be applied to
2 Bennington.

3 I'm not saying what I think
4 the effect is. What I'm saying is, it's not
5 unreasonable to think that there's -- that
6 there's somewhat of a uniform effect here and
7 that reasonable people could agree on that
8 effect and award damages based on it.

9 Q But you've seen no corroboration of
10 that alleged effect in the actual data on
11 property value diminution in Bennington; is
12 that correct?

13 A I have not been able to do that
14 analysis, no.

15 But that is the analysis that
16 Dr. Sunding did and Dr. Kopp did, and which
17 EPA has done for their studies.

18 Q Do you agree with Dr. Jackson's
19 opinion that neighborhoods within Bennington
20 are too dissimilar to be submitted as a
21 class?

22 A I didn't think his arguments there
23 were convincing, because I thought there
24 could be factors that could be controlled for

1 if those differences really exist.

2 But I also -- I don't -- I'm
3 not interested -- we're no longer interested
4 in whether it can be defined as a class, so I
5 didn't address that problem.

6 Q Why are you no longer interested in
7 it?

8 A Because they're not asserting class
9 cert for property diminution.

10 MR. WILSON: So I'm at the end
11 of my outline. Let's take a quick break and
12 we'll revisit whether we need to ask anything
13 else, but I think we're likely very close to
14 done here.

15 THE VIDEOGRAPHER: The time is
16 4:40. We are going off the record.

17 (Recess.)

18 THE VIDEOGRAPHER: We are back
19 on the record. The time is 4:55 p.m.

20 BY MR. WILSON:

21 Q Mr. Unsworth, I'm pleased to
22 report, I have no further questions at this
23 time.

24 A Okay.

1 MR. WILSON: Do you have any
2 direct?

3 MS. JOELSON: I do not.

4 THE VIDEOGRAPHER: The time is
5 4:55 p.m. We are going off the record, and
6 this is the end of today's deposition of
7 Robert E. Unsworth.

8 (Whereupon, the proceedings
9 adjourned.)

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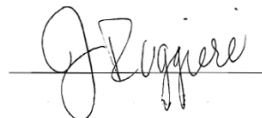
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C E R T I F I C A T E

I, Jill K. Ruggieri, Registered Merit Reporter and Certified Realtime Reporter, do certify that the deposition of ROBERT E. UNSWORTH, in the above-captioned matter, on September 27, 2018, was stenographically recorded by me; that the witness provided satisfactory evidence of identification, as prescribed by Executive Order 455 (03-13) issued by the Governor of the Commonwealth of Massachusetts, before being sworn by me, a Notary Public in and for the Commonwealth of Massachusetts; that the transcript produced by me is a true record and accurate record of the proceedings to the best of my ability; that I am neither counsel for, related to, nor employed by any of the parties to the above action; and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.



Jill K. Ruggieri, RPR, RMR, FCRR, CRR

Transcript review was requested of the reporter.

CERTIFICATE OF DEPONENT

I have read the foregoing transcript of
my deposition and except for any corrections or
changes noted on the errata sheet, I hereby
subscribe to the transcript as an accurate record
of the statements made by me.

ROBERT E. UNSWORTH

SUBSCRIBED AND SWORN before and to me
this ____ day of _____, 20____.

NOTARY PUBLIC

My Commission expires:

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Page 1

&	131 116:20 117:9 117:16	67:22 255:9 317:5 209,000 180:12 182:1	4
& 1:15 2:3 6:2,19 6:21	14 18:2 22:19 178:7 179:2	209,851 179:4,13 21 89:11 179:2,8	4 3:18 9:5 35:19 153:15 216:17,20 284:13
0	14726 317:21	212.698.3500 2:17 212.698.3599 2:17	40,000 250:21 400 114:20 116:10 116:10
00125 1:7 5:24 03-13 317:9 05753 2:6	15 17:5 20:1 22:14 27:9 30:13	215 90:11,22,24 91:1,16	45 3:24 455 317:8 47 114:18 115:4 4:40 315:16 4:55 315:19 316:5
1	16 31:14,20 151:10 253:19	2200 93:18 23 129:21 132:16 24 151:11 158:3	5
1 3:11 5:17 7:14 7:22 9:5,18 103:4 153:13 182:17,20 248:5	17 7:10 12:14 93:10 98:21 107:7	248 4:8 252 90:2,24 26 171:1 27 1:14 5:8 317:5 282,000 252:10 253:1	5 3:11,13,15,18,22 11:16,17 12:1 120:7 587 89:21 90:14 91:1 5:16 1:7 5:24
1-4 5:3 1.4 31:24 32:5 10 147:13 273:6 100 100:11,19 117:20,21 119:8 10036-6797 2:16 1095 2:15 10:14 40:11 10:16 40:14 10:29 53:2 10:30 53:5 10:48 72:9 11 3:22 53:7 67:10 71:16 72:15 81:6 285:22,22 286:4,4 110 93:12 95:4 259:9 111 2:5 113 119:21 11:02 72:12 12 287:19 12,000 20:6 100:13 100:16 120,000 259:10,15 260:15 12:08 138:15 13 17:24 22:13 42:10 288:10	18 107:7 110:19 173:20 300:22,24 301:2 19 111:22 114:12 310:23 1:05 138:18	2:07 201:13 2:26 201:16	6
	2	3	6 3:24 45:6,10 116:20 117:9,16 220:16,18 266:24 270:4 600 117:22,22 119:6,6 65 40:19 66 68:4,10,12
	2 3:13 9:5,24 26:19 153:14 178:11 186:20,22 216:15,22 230:17 20 32:22 33:10 65:12 93:17 95:5 103:3,4 117:15 312:15 318:13 20,000 142:24 143:15 144:8 250:20 2001 270:10 2009 4:2 151:20 2010 270:19 273:7 2011 20:4 252:10 252:19,24 2015 253:19 2017 22:14 32:2 258:18 259:14 298:8 2018 1:14 5:8 7:10 7:14,22 20:4	3 3:15 9:5 10:4 17:3 46:9 49:4 114:17 153:14 3/29/18 3:23 30 82:3 300 114:20 116:13 300,000 253:22 258:20 259:13 34 45:16 35 299:18 37 89:21 90:14,24 312:16 370,000 250:14 3:15 248:8 3:28 262:3 3:46 262:6 3m 296:24 298:10	7
			7 4:2 152:3,4,9 70-30 66:4
			8
			8 3:6 4:8 222:14 248:15 312:8 80 65:11 66:16 67:2 222:15 80,000 144:15 145:3,5,21

[80-20 - adverse]

Page 2

80-20 66:3 800 1:16 6:2 802 90:2 91:1 802.388.6356 2:7 9 9 139:9 266:20 270:21 284:11 9,167 179:8,13 180:11 181:22 90 66:19 67:3 90-10 66:3 93 12:11 94 174:12,15 96 174:12,13,20 177:14 99 82:3 9:37 1:14 5:8 a a.m. 1:14 5:8 40:14 72:12 ability 165:16 204:8 317:14 able 80:15 81:14 85:14 117:2 149:2 156:1 161:16 164:22 192:8 228:7 233:14 242:1 245:14 246:20 258:13 265:8 278:7 314:13 absence 157:23 158:1,5 159:13 165:24 168:14 240:4 310:18 absent 139:8,23 absolutely 36:8 abstract 145:17 153:1,3 166:9	abundance 230:21 academic 289:9 accept 12:9 222:15 225:4 acceptable 291:12 accepted 151:18 220:19 221:5 239:10,11 266:12 291:12 292:3 accepts 248:4 access 106:19 107:13 140:5,19 150:2 155:4 196:3 196:4 accessed 168:16 accessing 153:15 accident 137:8,9 137:13 accomplish 78:21 152:21 168:11 171:11 accomplished 166:20 172:6 271:17 account 47:4 90:8 107:19 237:22 259:19 260:1 292:24 accounting 17:8 91:8 260:23 261:5 accounts 283:8 accruing 208:5 accuracy 39:1 66:21 114:15 accurate 9:9,13 15:1 34:1,2 62:19 80:8 220:13 253:9 317:13 318:6 accurately 34:8 265:3 278:24	accuse 38:9 aces 299:18 achieve 166:16 acknowledge 37:5 70:8 148:9 acknowledged 70:22 acknowledgment 73:4,6 acquire 153:7 acquired 172:8 act 155:2 acting 155:3 action 5:23 6:8 80:17 81:16 143:7 151:18 154:12 156:23 158:23 211:8 305:12 306:21 311:4 312:23 317:16,19 actions 67:23 157:22 158:8 273:9 activity 304:5 actual 14:2 17:9 18:16 32:6 33:5 79:23 80:2 82:12 83:12 84:5,6,9,10 85:12,18 86:6 122:8 239:20 241:1 274:10 301:22 314:10 actuals 239:21 adapting 269:22 add 97:9 277:6,9 added 15:20 45:21 76:11 167:17 172:22,24 252:3 262:14 263:18 264:3,16,20 265:5 265:10	adding 90:11 addition 45:19 additional 20:10 29:24 30:9 36:19 47:3 76:8 78:7 92:14 119:22,24 125:6 175:16 224:14 address 23:7 38:18 47:1 58:2 58:18 111:5,11 133:16 161:1 167:19 168:11 170:7 180:21 181:6 185:2 200:23 272:2 297:23 315:5 addressed 45:24 73:17 122:11 125:20,22 140:15 169:5 addresses 22:3 107:8 169:17 181:3 270:11 addressing 181:1 adjourned 316:9 adjust 251:23 252:6 266:4 292:23 294:2,7 295:4,24 adjusted 251:20 adjusting 192:12 adjustment 264:12 293:18 adjustments 192:3 292:15 administer 6:7 advantage 141:4 260:13 adverse 288:13 304:19
---	--	--	---

[advise - answer]

Page 3

advise 136:11	165:4,10 167:7	129:24 165:19	108:19 110:4,7,9
advisory 266:20	175:14 176:10	alternatives 123:3	110:11,22 119:14
affect 51:24 66:4	216:12 229:15	123:4 153:6	125:11 139:4,8
155:20 239:2	250:13 294:8	alvarez 6:19	143:17 144:13
272:24 287:15,16	314:10	amended 7:10	150:22 151:14
292:20 303:7,23	allegedly 156:2	25:11,14 26:9	155:9 176:22
304:3	233:21	99:15 249:1	214:17 215:5
affiliations 6:12	alleging 154:19	amenities 196:5	230:4 247:7
afternoon 160:10	155:11 156:5,19	205:17 207:19	256:20 257:19
195:7	allocate 74:23	242:13	267:10,23 272:8,9
age 195:4 280:8,14	87:24 172:14	amenity 169:9	273:12 274:20,21
agencies 152:17	allocated 77:18	204:21 205:19	274:21 275:6
308:2	172:11	255:18	277:21 278:17
agency 303:9	allocating 19:4	american 152:17	279:8 284:18
agent 171:4,18	80:23	228:19 298:2	290:18,21 292:11
ages 296:2	allocation 19:18	americas 2:15	292:18 295:7
aggregation 271:6	19:19,21,23 72:20	amount 56:4 61:7	296:1 298:23
272:15,20	73:17 74:3,12	61:21 62:1 73:22	299:3 301:6
ago 28:9	75:5,13,17 76:7	74:11 90:22 110:1	302:15 314:14,15
agree 5:15 35:3,6	77:20 78:1 79:8	115:8 116:19	analyst 59:21
44:2 47:17 74:6	79:10,19 80:19	117:8 142:22	131:22 211:20
84:15,19 155:5	81:8,18,23 82:20	152:18 172:10,11	252:5
207:10 271:13,24	83:8,15,22 84:1	177:18 214:5	analytic 59:21
273:19 283:7	85:13 86:3,3,18	261:19 262:23	analytical 265:14
286:11 288:4	87:10,12 88:8,10	264:1,10 312:13	analyze 20:22
289:14 291:22	88:11	amounts 88:14	197:3,5 245:11
314:7,18	allocations 78:10	90:11 283:14	annual 18:1 22:17
agreed 38:2 125:8	allow 25:15 78:15	analyses 42:13	22:19 42:16,16
agrees 44:8 47:19	92:4 95:23 131:10	92:9 257:8,17	84:11,13,18,21
ahead 121:3	218:22 265:22	258:8 268:11	95:21 108:5
208:16 237:14	276:14 278:8	analysis 16:11	114:15,17 115:4
286:3	allowed 24:22	17:8 36:22 42:22	116:20 117:9
al 1:4 5:20 151:20	199:24 236:17	44:5,24 47:7,22	119:20
algorithm 275:5	305:18	48:1 52:16 55:7	annualized 48:10
275:10	allowing 304:4	55:18 59:22 65:23	anonymously
algorithms 240:1	allows 150:20	67:3 82:21 89:3	132:19
240:3 242:17	220:4 243:9 289:2	91:20,21 92:5	answer 12:23
254:5	alpha 32:1,7	94:5,15 96:15	22:23 36:23 68:22
allegations 296:14	alternate 124:14	97:7 100:5,10,21	69:9 140:15 141:1
alleged 38:2	alternative 101:5	101:2,9 102:2	174:19 177:13
164:13,16,18,24	124:3 126:9	104:23 107:19,24	226:18 247:14

[answer - asked]

Page 4

256:24 259:2 280:3 295:20 303:24 answered 23:10 29:14 32:14 42:5 42:24 43:3,19 64:5,16 65:19 69:20 96:8 98:16 118:5 136:5 137:23 143:20 144:6 169:3 185:23 207:16 216:7 226:18 233:11 235:3 254:17 279:13 289:20 308:22 answering 73:7 156:15 162:22 answers 8:15 anticipate 8:20 anybody 147:3 apalachicola 210:21 apologize 50:12 68:9 311:7 apparent 51:19 apparently 135:17 271:23 appear 9:9 76:20 appearances 2:1 6:11 appears 12:8 16:20 27:17 32:9 45:13 165:14 168:21 appliances 281:7 applicable 155:10 155:21 application 154:16 156:11,17	applied 119:12 177:23 225:3 290:24 296:9 314:1 applies 32:22 33:10 46:21 47:20 119:14 286:12 apply 16:12 47:21 58:22 176:18 237:18 245:15 269:16 273:22 293:16 applying 16:11 55:22 192:3 292:7 292:13 293:8,11 appraisal 14:21 16:10 38:24 175:9 177:15,17 220:22 226:16,20 227:2,7 244:6 257:8 258:13,19 259:5 259:12,22 260:3 260:13 261:8 265:15,17,20 266:13,19,23 272:9 275:24 292:5,9 301:5,12 301:16,24 302:5 302:11 304:14,16 305:8 306:15 307:16,21 309:22 appraisals 227:17 257:1,10,16,17 258:8 appraise 190:11 appraised 225:10 225:11 258:17 260:10 261:10 appraiser 12:16 12:19 15:3 16:10 190:5 191:17	214:15 215:3,6 227:8 256:21 257:1 259:19 260:5 267:13 284:5 303:13 305:5 309:9,17 appraisers 13:1,9 13:13,21,24 177:23 178:18,21 192:7 237:7 246:4 256:13 258:3 265:21 266:18 267:8,17,24 301:23 302:16 appraising 266:13 appreciate 25:1 approach 75:1,1 78:4 84:17 86:21 87:24 109:11 220:23,23 265:14 267:13 292:5 approaches 266:17 appropriate 35:4 43:4 80:21 81:20 82:18 83:9,17 84:8 85:11,17 86:5,22 87:2,3 93:9 96:3 98:23 166:11 230:10 264:14 308:1 309:8,11 appropriately 299:24 approximately 224:23 area 86:13 115:12 115:16 118:4 119:17 164:21 186:13,15 192:14 192:17,20 193:1,5	193:9 194:1,8,11 194:14,19,22 195:17 196:8 198:17 199:16 271:5 277:2 279:10 280:12 284:16 285:2 286:12 289:17 292:14,14 305:17 311:4 312:4,23 areas 228:14 291:8 arguably 49:13 argue 219:15 arguing 49:8 argument 34:13 34:18,24 35:5,12 35:16 272:2 argumentative 42:5 arguments 35:8 314:22 arm's 189:20 257:5 258:2 266:11 article 4:2 152:11 152:14 153:20 155:9 156:9,10 270:10,14,19 273:7 articles 155:8,15 156:16,20 267:15 ashton 2:24 6:3 aside 33:19 50:14 62:9 asked 22:9,20 23:10 25:22,24 29:13 32:14 42:5 42:24 43:3,19 62:8 64:4,15 65:18 66:8 69:20
---	---	---	--

[asked - average]

Page 5

75:9 76:14 85:21 86:8 89:6 95:15 96:7 98:16 99:13 114:7 116:22 118:5,13 134:6,18 137:23 138:21 140:24 143:19 162:5 169:3 185:22 196:15 207:15 216:6 220:1 226:17 228:10,16,20,21 231:3 233:10 235:3 240:21 244:18 245:17 246:17 254:17 255:14,16,17,20 279:12 289:19 306:19 308:22 asking 15:24 24:22 25:8 35:10 37:9 38:24 39:2 51:17 59:19,20 64:21 66:14,15 73:7,13 79:9 83:6 83:7 98:19 99:23 99:24 134:5 136:7 137:23 141:2 142:14 143:13,21 144:4,5,7 145:10 154:5 155:7 168:23 206:23 207:1 224:8 237:1 243:6 asks 221:10 aspect 185:8 assert 118:8 224:5 asserted 89:17 141:21 176:20 224:6	asserting 140:9 184:15 228:7 275:23 315:8 assertion 207:6 asserts 89:24 assess 65:15 89:15 140:2 244:19 282:9 assessing 153:21 assessment 72:21 87:10 151:20 asset 100:16 189:18 203:23 204:2 205:16 208:4 assets 222:23 223:2,19 assign 82:2 300:5 assigned 77:18 associated 19:11 50:21 77:3 84:2 108:5 134:15 157:17 158:11 171:22 183:2 275:17 297:11 313:18 assume 18:5 26:24 61:5 62:3,5,17,19 65:10 85:7 93:16 93:22,23,24 94:13 103:23 114:17 137:3 145:16,19 187:13 188:23 225:14 239:13 252:1 259:24 281:3 310:6,18 assumed 18:13 26:20 33:11 assumes 18:1 23:7 26:14 282:3	assuming 61:16 107:24 253:8 255:8 265:8 assumption 28:4 29:8,18 62:14 66:16 assumptions 21:17 29:2 73:12 74:22 assure 67:21 165:21 atlanta 210:14 atmospheric 235:13 attempt 130:12,24 140:2,17 142:21 160:3 193:23 206:4 259:2 attempted 14:1 90:17 194:6 216:4 245:11 276:13 attempting 272:19 attention 310:4 attorney 43:3 54:21 118:11 184:19 317:17 attractive 191:9 attributable 167:8 235:21 attribute 13:18 234:6 254:2 262:15 274:6 attributes 16:7 157:15 158:9 191:19 237:20 259:10 268:3 274:1 275:12 278:16 282:14 288:6 292:23 296:3 attributing 203:1	audio 5:13,14 august 7:10,14,22 author 208:14 209:1,17 210:5 authorities 102:1 102:6 authority 185:15 authorized 6:6 automatically 305:2 availability 147:20 149:20 268:11 available 55:22 64:19 78:11 87:4 99:12 160:5 164:3 170:2 187:15 196:12 198:21 199:5 230:22 232:3 243:3,14 245:7,15 250:3 251:8 254:2 285:17,19,20 avenue 2:15 average 16:16,20 42:22,23 43:9 44:19 46:2 62:19 62:20 63:23 64:14 64:18,22 65:6 73:21 74:10 75:4 75:15 80:6,12 82:6 86:10 88:18 88:24 101:10 102:12,18 103:8 108:2,3 109:24 114:17 115:19 119:8 143:1 179:3 179:8,21 180:11 181:22,23,24 182:5 273:13,20 273:22 274:3
---	--	--	---

[average - benefit]

Page 6

275:19 304:8 averaged 64:17 averages 43:17,21 44:3,9,13,17 46:7 46:10 47:18,20 77:16 82:4 85:24 88:20 averaging 48:17 48:21 avoid 219:3 257:24 award 75:3 263:14 263:15,24 264:1 264:14 314:8 awarded 18:24 78:12 172:10 260:15 263:21 264:10 aware 55:11 101:18,21 122:3 122:12 138:22 154:11 156:16,20 185:17 188:7,8 194:7 223:20 242:24 258:6 266:12,16 269:20 270:1,13 283:10	252:5 258:11,20 260:24 261:18,20 262:5 274:9 315:18 backing 275:7 backwards 48:19 bacteria 18:2 22:17,19 23:19 26:13 27:1 bacterial 29:12 bacteriological 28:12 bad 25:12 230:8 240:24 baked 300:12 balance 247:10 261:1 ball 165:22 bank 222:11 223:7 223:11 225:4 239:10,11 256:17 banks 223:21 257:1 258:2 barr 67:21 base 232:11 based 29:4,6 32:18 33:22 37:22 59:8 59:10 73:11 74:20 74:21,24 75:3 76:15 79:12 82:11 83:1 88:1,10 90:17 91:13 96:10 113:18 115:16 120:21 127:24 176:24 185:19 213:10 223:21 239:24 243:21 249:12 256:1 258:1 259:5 283:6 287:3 292:23 311:14,17 313:12	313:15 314:8 basement 290:7 bases 232:19 basic 155:16 basically 90:11 94:19 95:23 184:4 265:22 274:22 basing 212:24 213:4 basis 28:22 104:5 113:16,16 186:6 243:4 247:13,16 255:7 259:1 273:3 274:14 309:22 313:11 bathroom 204:14 205:10,12 242:16 281:7 bathrooms 195:19 204:15 280:19 300:18,20 bear 90:10 bedford 211:9,12 211:13 212:13 213:20 bedrooms 195:19 280:18 beginning 12:14 17:6 174:19 246:1 272:5 275:14 begins 151:13 158:4 behalf 1:5 209:12 234:20 behavior 134:13 136:20 137:1 138:5,8 139:18 141:23 146:10,11 behavioral 305:9 belief 32:16	believe 14:3 15:23 16:16 21:6 22:3 22:21 23:13 25:11 37:7 39:13 43:2 46:19 54:11 59:22 60:14 64:8 65:11 73:10 97:20 98:11 99:15 117:11 128:10 130:11 133:9,10 138:21 170:17,18 174:22 175:7,22 176:22 180:22 181:5 183:8 192:18 211:24 218:1,10 219:4 220:21 224:1 225:6 229:3 233:2 242:11,11 243:20 245:3 246:24 252:2 262:24 267:21 274:18 275:3 276:6 279:9 283:13,19 294:20 295:21 298:13 303:4,18,20 305:16 308:23,24 believed 203:24 292:20 believes 32:20 36:10,12,15,17 43:4 44:14,22 89:19 108:23 161:19 272:24 305:6 beneficial 95:22 beneficiary 171:9 171:13 benefit 11:10 36:11,18,21,24 37:2,12 38:20
b			
b 3:9 back 17:23 19:24 38:21,22 40:13 45:4 50:11 53:4 71:15 72:11 85:23 88:24 91:3,9,19 104:3 121:22 138:17 159:17 165:1 179:19 180:5 182:2,8,12 182:13 197:22 199:3 201:15,19 226:24 231:17			

40:19 41:10,19 42:2 46:2 47:8 49:20,21 50:1,8,18 89:21,23 94:1,14 96:13 97:20 98:9 131:21,24 141:22 171:19 229:10 290:22 291:4 292:6 295:6 benefited 36:3,16 38:9,11,15 39:5,7 39:20,21 41:1 benefits 89:23 90:1,6,16,21 91:8 98:7 208:5 269:1 290:20 291:11 292:2,11 296:1 bennington 12:16 15:22 16:22 18:3 18:3 36:2,11 40:18 76:1,9,17 112:5 113:17 119:19 139:13,13 139:19,19 148:14 148:14 151:8 162:17 172:16 175:2 179:4 181:24 193:10,22 196:8 198:17 201:22 203:9,9 211:7,14 284:8 290:11 311:2 313:22 314:2,11 314:19 best 11:3 55:21 128:11,20 136:5 164:3 214:4,12,13 244:10 317:13 better 12:20,24 13:9 15:1 16:9 76:19 77:12 129:6	129:8,15 178:21 216:11 244:11 246:3 255:12 257:18 261:19 beyond 24:7,10 38:6 74:17 121:5 134:15 159:5 170:7 200:5 237:13 276:11 biased 284:19 bidder's 281:15 big 115:17 223:18 bill 55:15,16,24 56:1 76:20 85:15 108:14,16 billing 112:8,17,19 bills 55:1 56:4 78:16,17 79:24 85:12 88:2 bit 83:13 174:14 201:7 227:14 259:7 blocks 199:1 257:2 257:3 board 301:23 boards 266:20 bold 300:23 311:14 bolded 311:1 borne 146:19,22 borrow 204:9 borrowed 261:17 boston 1:17 6:3 bothered 304:10 bottled 132:21 133:4,15 134:2,8 134:14,14 136:15 bottom 182:20 220:18 230:18 250:9	bought 150:15 bound 128:10 box 187:14 234:14 287:1 boylston 1:16 6:2 bracket 268:5 brand 60:15 61:3 break 40:4 71:20 72:1 120:7 138:11 201:9 238:6 248:11 261:22,24 297:19 306:13 315:11 breakdown 194:3 briefing 209:20 briefly 208:7 262:9 bring 71:11 154:10,14 310:3 broad 303:24 312:4 broadly 119:15 192:4 broker 190:9 brook 165:22 bryant 2:14 bucks 95:5 build 196:15 240:13 building 100:24 built 145:2 bullet 17:24 35:24 35:24 42:11 49:7 54:23 60:2 67:9 216:22 230:18,20 270:7 bunch 111:20 278:15 bureau 200:2 221:10,19 224:6,9 224:16 229:7	business 9:15 11:20 255:21 291:4 301:24 button 242:6 buttons 242:12 buy 61:16,17 200:3 232:5 279:20 282:5,10 buyer 16:1 31:8 187:10 291:21 304:8 buyer's 283:2 buyers 147:18 148:19 149:19 174:4 284:15,24 285:3,14 290:10 310:4,11 buying 134:7 257:3 283:3,5 buys 240:11 c c 5:1 317:1,1 ca 1:7 cabinets 281:6 cake 46:19 47:6 calculate 18:21 22:18 46:7 47:11 58:22 74:19 79:6 101:3 127:24 134:7 167:10 174:6 289:1 calculated 44:15 57:1 78:9 90:12 119:9 180:6 181:18 264:17 288:11 calculates 90:14 108:4 calculating 15:17 50:8 65:7 77:17 133:14 138:8,9
--	--	---	--

calculation 21:16 44:20 50:3 66:5 66:13 94:22,24 95:6 109:8 120:4 179:20 calculations 35:1 43:13 44:6 45:24 46:6 64:7 73:12 76:5 78:6 91:13 104:4 116:7 138:4 179:17 calculator 251:2 call 9:19,22 14:9 113:4,8 calling 49:6 111:1 calls 94:23 capable 238:19 243:20 244:2 capacity 168:10 capital 86:2 100:3 101:8,12 102:19 103:2,11,20 107:8 107:11 108:1,6,12 109:24 capitalization 14:24 85:10 175:15 176:7 capitalize 85:6 264:2 capitalized 14:5 14:14,19 15:13 16:3 84:20 175:8 262:16 263:5,17 264:16 captioned 317:5 card 108:17 cards 106:19 107:14 carries 173:23 case 12:10 14:1 15:16 19:15 21:5	23:24 24:12 32:9 33:16 41:7 50:3 63:10 71:6 76:21 79:3 86:15 96:14 101:17,20 102:11 116:4 133:9,17 135:12,12,13 136:3 137:16 146:16 154:2,6 157:1,3 169:5 171:3 182:23 184:20 200:16 205:5 208:19,21 209:1,5,16,18,19 210:4,6,8,8,10,15 210:17,19,19 211:2,17,18 212:8 213:5,13,15,20 214:3,19 215:16 216:5,11 219:18 219:20,24 225:3,6 228:5 229:21 235:1 243:1 248:20 249:22 255:13 262:18,24 265:14 275:18 277:13 281:21,21 283:23 286:19 296:13,16,19 297:1,2 299:6 308:11 cases 35:7 67:18 78:8 172:3 175:1 205:21 213:6,10 225:9 239:20 306:23 cash 108:15,19 204:6 206:10 casing 129:1 categories 41:14 41:16 153:12	264:10 category 136:12 138:9 170:6 177:10 causal 218:16 causation 205:7 218:8 cause 151:17 156:23 201:24 202:14 206:19 300:5,14 303:15 307:12 caused 152:20 155:22 167:12 207:14 217:22 218:10 233:21 236:14 causes 198:13 206:16 219:6 causing 198:14 202:6 205:9,12 302:18 caution 225:13 cautious 127:2 cellphones 5:11 census 179:3 198:22,24 200:1 221:10,15,17,19 222:1,2,3 224:6,9 224:16 227:13,16 227:20 228:9,15 229:5,7,24 230:7 center 9:16 11:20 195:6,21 centroid 119:14 cercla 155:20 cert 160:18 315:9 certain 17:16 33:8 33:8 42:12 47:12 95:12 111:19 171:21 187:23	289:7 certainly 25:6 92:16 98:17 223:9 242:23 certificate 318:1 certification 9:20 182:24 183:9,18 184:7 185:10 271:22 275:15 276:6 certified 317:3 certify 317:3 cetera 111:18 228:14 281:7 challenge 271:12 271:15 challenging 153:11 change 11:6 14:17 16:1 46:14 66:13 89:17 117:5 134:16 136:24 174:3 210:23 233:14,21 234:5 235:20 261:1 267:3 299:7,14,15 300:21 changed 134:13 163:5 219:10 234:2 236:7,8 changes 115:17 174:1 228:12 256:1 318:5 changing 236:22 characteristics 17:17 33:9 117:3 147:19,21 148:24 149:19,21 169:6 186:12 190:21 194:10 208:16 271:4 273:15
---	---	---	---

279:11,15 288:6 296:3 307:10 characterization 155:6 157:20 characterize 34:7 34:10 41:19 125:9 characterizing 162:19 charge 95:11 119:22 145:1 charged 145:4 charges 23:1 109:6 charles 3:17,24 10:5 chart 115:11 116:19 117:4,8,11 117:14 248:18 312:8 chattahoochee 210:21 cheaper 36:14 94:16 166:16 check 114:11 135:15 241:11 251:2 290:17 checked 112:18 checks 229:24 chemical 302:24 chicago 292:19 chicken 205:6 choose 70:5 89:1 103:19 112:17 147:22 148:6 149:7,14 256:13 choosing 112:19 112:20 113:3 chose 63:7 91:12 110:4 148:6 301:16	chosen 101:6,14 134:17 141:10 144:20 154:10,14 circumstance 264:13 circumstances 15:4 95:12 123:17 123:24 124:4,11 124:16 132:3 218:16 308:19 cite 101:15 102:1,6 112:11 152:11 155:14 156:1,9 213:11,12,14,14 213:15,17 218:14 266:21 270:20 cited 112:23 154:15 243:1 267:19 270:16 301:19 307:22 311:19 cites 139:16 155:8 296:12 citing 151:20 citizens 222:11 civil 5:23 claim 56:24 133:20 135:19 154:10,14 167:20 186:6 188:21 208:13 209:5 210:2 229:13 264:1,15 288:15 312:20 313:12 claims 59:12 133:6 133:17 156:18 185:9,12 186:10 209:24 210:12 259:8 260:15 263:16	clarification 145:14 clarified 182:8 clarity 116:3 class 1:5 9:20 16:17 18:16,22 19:1 20:24 21:10 24:5 25:10 29:11 32:11 38:4 46:1 48:7 49:8,10,13,17 50:16,17 52:15 53:12 54:5,6,16 55:15 56:5,6,18,21 56:24 57:2,13,15 57:17 58:19 59:8 59:10,24 60:1,11 61:14 62:22 64:2 64:9,13,23 65:11 65:17,21 66:6,17 66:19,22 68:8,17 68:19 69:5 70:10 70:11 72:21 73:10 73:22 74:11,13 77:17 78:10 79:24 80:17 81:16 83:7 85:13 87:5,11 89:7,19 94:7 102:13,16 103:11 104:1,4,16,17,22 104:24 105:5 106:18 107:13 116:9 118:3 130:6 131:6 132:5,9,15 133:20 135:10 145:4,22 146:13 172:1,9,12,14 173:10,18 182:24 183:9,10,17 184:6 184:10,15 185:10 186:8,13,15 188:19 192:14,17	192:19,24 193:5 194:1,11,14,22 195:17 199:16 214:2 262:17 271:2,21 273:3,9 275:15 276:6 277:2,14 279:10 285:2 286:12 288:19 314:21 315:4,8 classic 50:9 classwide 271:6 272:14,20 clean 50:7 123:21 125:2 153:13 165:24 198:13 clear 8:17,24 9:18 27:22 79:9 85:23 99:22 112:21 139:20 216:3 262:10 clearer 10:16 clearly 25:10 32:18 89:6 304:2 click 242:8,12,17 client 119:3 134:6 136:11 209:20 close 223:14,17 251:15,16 287:12 297:24 315:13 closed 176:3 closing 310:21 coefficient 278:4 coeur 291:6,7 collateral 222:13 collects 230:7 column 250:9 252:9 253:4 combative 40:8 come 63:11 82:6 87:20 97:24 99:22
--	--	---	---

[come - connect]

Page 10

102:11 105:14 140:13 182:12 197:22 201:18 215:17 220:1 276:2 301:16 comes 43:13 81:13 83:10 123:21 137:17 263:22 278:17 300:12 comfortable 281:10 coming 70:16 142:11 261:22 comment 174:22 commenting 186:3 269:19 commercial 112:6 194:5 242:3 304:4 commercially 199:5 commission 256:19 318:20 common 53:11 54:6,11,16 56:5,9 56:11,14,15 57:7 57:11,15 58:10,14 58:15 59:24 73:11 73:11,18 74:20 157:10 187:1,6 188:4 207:6 296:19 commonly 283:12 commonwealth 317:9,11 communication 112:12,22,24 113:18,22 114:9 communities 283:21 community 36:3 36:11,17 37:3,12	37:17 38:9,11,15 38:16 39:6,7,20,21 101:11 141:22 164:7 169:24 170:1,5,10 173:16 197:24 200:12 209:7 228:19 242:5 260:7 311:3 communitywide 268:16 comparable 168:4 169:1 190:14 192:3,8 comparative 15:7 compare 168:2 265:24 294:10 299:19,21 compared 202:20 214:13,14,15 249:3 comparing 142:7 142:13 143:23 226:21 comparison 293:3 299:18 comparisons 191:11 299:17 compensate 82:10 152:19 172:22 173:1 compensating 86:20 compensation 4:6 19:8 80:7 139:3 155:23 185:19 compete 282:19 competent 217:5 217:10,13,15 218:15 219:8 competing 282:16	competitive 293:19,20,24 294:1 complete 11:3 167:11 256:12 completely 119:23 135:23 completing 171:23 complex 232:24 233:9,20 234:6,10 234:16 235:1 complicated 107:22 comply 26:9 component 85:15 components 48:11 167:20 computed 240:19 concentration 303:14 304:21 307:23 concentrations 70:6,16 286:22 305:13,20 306:2 309:3 310:8 concern 27:10 202:22 227:10 294:17 307:12 concerned 197:14 235:5 294:3 concerns 133:5 175:24 202:12 conclude 307:18 concluded 41:8 conclusion 48:24 137:24 147:14 151:2 234:4 310:2 conclusions 151:14 condition 108:11 142:8 143:24	144:1 157:14 158:9,16 159:2,4 159:10 235:6 280:22 282:21 283:9,11,15 conditions 142:13 157:9 185:20 235:13 284:9 293:1,6 296:2 304:20 310:15 conduct 77:24 93:14 94:1,8 123:23 135:12 201:4 224:13 257:1 290:18 conducted 151:14 247:8 284:18 290:23 conducting 79:19 295:6 299:2 conducts 107:23 conferred 92:21 182:9 confident 295:3 confidential 210:18 211:22,24 212:14 confirm 20:11 43:5 conflict 210:20 254:22 conflicting 34:5 confound 299:8 confounding 203:1 confused 87:7 connect 120:14,22 122:24 130:1 132:13 139:22 140:18 144:16 147:8 149:7,14
---	---	--	---

[connect - continuously]

Page 11

162:12 connected 120:20 121:14 128:4 131:11 connecting 130:13 131:1 140:3 198:10 connection 55:2 83:14 122:4 126:10 127:23 140:21 143:3 147:17 149:17 169:9 170:13 193:1,5 260:3 connections 130:4 132:4 141:9,11 151:8 consecutive 69:3 69:17 consent 130:3 consequences 207:2 conservative 29:1 conserving 153:14 consider 65:3,5 66:24 79:19,20,21 79:23 80:2,21 81:20 82:18 83:10 83:15,18 84:9,10 85:11,17 86:1,5,11 86:17,23 87:2,3,21 87:23 96:3 97:3 109:19 110:2,7,10 110:12 120:13 123:6 150:14,22 151:1 169:8 170:12,18 177:5 185:15 188:12 191:18 194:13,18 201:5 226:15 233:18 237:20	238:9 239:14 255:6 264:11 273:1,5 279:21,24 280:5,8,11,14,21 280:24 281:4,5,9 281:13 285:6 292:19 295:1 300:6 304:9 307:9 consideration 64:24 127:10,18 259:22 306:8 considerations 131:9 142:20 200:14 246:6 281:16 considered 49:14 64:18 77:20 86:16 86:24 87:1 88:8 121:23 122:6,14 122:16 150:12,16 166:22,23 170:20 194:9 238:13 272:7,8 276:10,11 280:15,15 285:5 288:7 considering 38:5 41:15 73:20 74:9 82:15 87:13 89:16 121:24 177:6 191:17 264:7 279:20 284:17 considers 41:14 82:22 consistency 116:16 181:7 consistent 14:20 24:14 27:3 151:17 151:18 175:9,10 constituents 17:17 33:9	constitute 132:7 136:9 158:16 160:21 161:20 164:12 165:9 260:17 constituted 309:11 constitutes 52:14 133:11 134:3,9 136:21 137:20 166:11 167:7 construct 59:22 100:22 202:5 constructed 83:4,4 110:11 constructing 194:17 construction 195:20 construed 118:17 292:12 consultant 193:9 consultation 166:4 consulting 136:10 298:2 consuming 136:15 consumption 50:22 119:16 contacts 222:3 contaminant 159:9 294:13 304:11 309:3 contaminants 128:24 129:1 173:3,16 176:1 209:7 218:3 294:8 294:9 307:20 contaminated 15:22 30:5 37:6 164:19 170:1,10 234:11,12 288:1 295:5 302:1	contamination 28:12 36:1,10,24 37:2,11,16 38:10 39:5,21 41:2,5,20 41:23 42:3 139:23 145:11,12,17 157:18,23 158:1 158:12,18,20,23 159:10,14,16 187:2,7,17 198:6 198:13 207:23 208:1,19 209:1,16 210:4 211:8 228:22 233:4 250:11,13 266:15 284:22 285:7 286:14 295:17,20 295:23 300:6,13 301:19 302:17 308:17 309:2 311:21 312:5 313:19 contemporaneous 114:8 content 81:9 contents 48:3 context 51:20 153:24 155:19 156:4 161:3 174:14 179:3 181:6 227:21 291:1 contexts 290:24 continue 5:15 70:5 110:22 162:6 continues 63:1,21 continuing 122:21 282:2 continuous 125:23 continuously 129:10
--	---	--	---

[contractor - cost]

Page 12

contractor 171:18 171:19	57:3,19 59:7,13 65:13,14,17,23	252:14,21 253:13 253:23 256:3,10	correlation 203:6
contradict 32:16	66:6 68:19 69:8	256:22 257:20	corroboration 314:9
contradicting 28:4	69:18 70:12,23	259:16 262:13,17	cost 12:17 14:10
contributed 229:4	71:5 73:2,3 74:1	263:1,7 264:3	14:10,17,17 15:6,7
contributes 13:19 242:16	75:8 76:4,12 77:7	265:11 267:20	15:12 16:2,6,20
control 200:19,23 201:2 202:21 215:21,22 256:7 290:19	77:13 87:15,18 90:22 93:4 94:9 94:21 95:14 96:22 100:7,13,14 102:13,20 103:21 104:9,13,19 105:12 106:8	272:17,18 274:3 277:18 278:11 279:6 282:1,11 284:23 287:10 306:9 307:14 308:13 314:12	17:1 19:11,13,14 27:18 30:20 32:6 36:13 40:22 41:12 41:21 42:1,13 43:14 45:21 48:10 50:21 51:6 52:1 52:16,20 60:7 61:6,10,12,20 62:1 62:11 64:9,10,17 64:19 76:24 77:5 80:3 82:19,22 83:12 84:3,5,6,7 84:11,13 89:17,22 93:14,20,23 94:21 96:20,21 97:10,21 97:22 98:8 100:4 101:8,12 102:12 103:2,5,9 107:20 108:13 109:18,20 114:16,18 119:7,8 119:21,24 120:13 121:3 127:11 128:1 130:1,13,20 131:1,3,12,21,24 134:16 136:24 138:23 139:7 140:3,17 141:3,19 142:1,14,24 143:15 144:2,7,8 144:15 145:21 146:12,17 147:5,7 154:17 157:13 165:14 166:15 167:17 168:20 169:12 170:14
controlled 202:9 202:11 314:24	107:21 111:16 112:13 113:20 116:21 117:10,16 120:2 122:24 123:10 124:5,17 124:24 127:22 128:6 131:4,18 132:5 133:7,10 137:21 139:1 142:4 146:15 148:11 149:10,21 150:9,10,12 153:23 157:9,19 159:23 162:3,18 167:8 172:2 173:12 176:10 177:1 180:3,13 191:13,22 193:7 205:13 206:6 207:10 212:10 213:6 215:11 216:5,9 218:9 221:6 227:5 228:17 229:16 234:7 239:18 241:4 244:3,16 246:6,14 250:16 250:22 251:18	correction 319:2 320:2 corrections 318:4 correctly 13:5 17:10 18:8 20:13 30:18 32:3 34:10 36:4 42:19 46:12 49:15 53:16 60:9 67:13 68:1 69:12 72:23 90:3 91:5 94:3 98:12 108:20 109:14 112:9 115:1 120:16 129:12 130:7 132:24 139:24 148:7 151:22 153:18 158:13 171:6 174:9 175:11 183:3 187:3 217:7 221:1 230:24 231:3 244:5 271:9 272:10 273:17 286:9 288:2,16 301:10 311:5 correlated 202:17 299:15 correlating 275:12	

[cost - day]

Page 13

171:13 172:4,4,23 173:9 174:2,23 175:6 176:20 179:5,9 200:17 205:17 262:14 264:20 costs 14:2,24 15:20,20 17:9 18:16 22:11 42:12 42:16,17 43:22 47:3 61:13,23 62:6,16,23 63:24 64:3 76:11 77:3 80:19,22 81:18,21 84:2,9,10 86:14 88:22 93:22 95:14 96:5,19 97:9,11 100:23 101:1 102:18,19 103:8 103:11,20 105:7 115:4,7,12 116:21 117:10 120:21 134:15 139:5 142:22 158:15 167:19 171:22 172:24 175:16 176:7 263:6,18 264:3,16 265:5,10 counsel 2:9,20 5:19 6:10 182:9 317:14,17 counsel's 180:21 counting 263:23 county 21:7 203:11 couple 289:23 course 10:10 70:2 132:9 176:17 188:16 224:11,21 293:21	court 1:1 5:22 6:5 6:24 8:16,21 9:3 22:11 135:3 152:7 211:2,3 220:2,22 248:13 289:2 296:22,22 courts 79:10 cover 63:6 98:24 120:6 covered 57:21 62:10 63:2 147:9 147:11 289:24 covering 193:12 crawford 24:24 99:16 161:15 create 113:7 credibility 89:15 credible 220:10 credit 105:9,12,15 105:18 106:7,16 106:19 107:14 108:17 206:5 207:1 260:12,19 260:24 credits 105:16 crime 190:22 196:2 criteria 13:16,16 166:9 190:24 191:4,5,23 critical 283:3 criticize 46:21 critique 110:14 183:19 critiquing 35:2 110:6 crosses 182:22 crr 1:20 317:22 curiosity 239:8 curious 128:15	current 26:3 105:24 205:20 227:21 228:16 237:10 276:18 currently 175:5 190:4 305:19 307:1 customers 36:19 55:9,12 112:2,5 cv 1:7 5:24 cycle 111:14 cycles 293:22 d d 1:4 3:1 5:1,20 d'alene 291:6,7 damage 57:17 59:8 65:7 72:20 74:20 78:5 79:22 83:24 88:12 133:23 134:16 135:1,4 136:12,24 137:10,14 151:19 157:10 174:6 277:17 278:10,11 288:15 289:2 damages 3:14 15:17 18:21,24 19:4 21:12,17 43:14 44:14 45:21 46:8 53:11 56:10 56:17 57:1,10,12 58:11,22 59:7,10 59:23 66:5,21 73:9,22 74:3,11,24 75:12,15 77:17 78:9,11 79:7,8 80:23 81:8 82:21 82:24 83:1,7 86:11,16 89:3 93:6 120:11,15,19 125:11 127:22,24	128:3 129:20 133:7,11,14,17,21 134:3,7,10 135:7 135:21 136:2,9,21 137:20 153:21 157:8,13 158:17 167:17 169:12 170:15 172:10 173:9,10,11,14 183:1 193:6 216:5 260:16 275:16 288:12 289:8 314:8 data 13:12 27:10 59:12 64:19 176:24 196:11,16 198:18,19,21,23 198:24 199:4,5,7 201:21 202:4 203:10 215:10,14 215:21 221:12,21 227:14,16,20 228:9 230:1,6,7,9 232:13,15 242:2,3 242:4 243:8,15 246:5,11 249:19 250:4 251:13 255:9 256:1,6,7 267:10 274:5,7 279:4 291:2 314:10 date 249:7 289:5,7 299:15 319:24 320:24 david 297:6,7,8 298:10,15 day 114:20 116:14 117:23 119:7 129:11,11 263:22 288:14 289:4 291:5 318:13
--	--	---	--

[days - description]

Page 14

days 240:11	defeat 34:18	depart 308:15	26:1,6 43:1 45:11
dealing 172:20	defeating 35:12	309:1	57:22 58:21 62:10
deals 85:16 177:21	defendant 1:10	department 20:5	63:4 66:9 68:4,11
241:17	2:20 5:19 296:24	153:4 190:1	68:12 69:21 74:19
debt 174:5 261:1,3	defendant's	departure 308:12	78:3 82:2 92:14
decade 251:22	135:11 152:9	308:20	99:13 107:2 118:6
decades 139:20	defendants 209:13	depend 51:10	118:14 128:9
december 22:14	234:20	83:21 223:14	140:7 141:14
178:12,13	deficiencies 45:20	226:19 242:4	146:5 147:12
dechert 2:11 6:14	deficient 47:7	263:20,21 287:5,7	152:9 154:23
6:17	definable 311:22	depending 19:20	162:6 167:3
dechert.com 2:18	define 52:18 56:20	43:24 75:16	174:12 177:14
2:19	265:16 301:5	116:18 117:7	178:16,19 193:13
decide 200:17	defined 291:20	126:21 194:8	232:17 246:1
223:13 226:11	312:5 315:4	303:12	248:16 316:6
256:17	definition 49:11	depends 100:5,9	317:4 318:4
decided 281:19	75:20 78:18	100:21 106:1,1,4	depositions 7:12
303:5	102:23 104:4	124:23 125:1	7:16,18,19
deciding 291:16	122:17 132:12	144:23 214:16	depth 29:4 60:19
295:2 302:1	159:1 183:10	215:4 226:23	76:24 116:18
decision 103:20	189:13,15,17,22	245:14	117:7,22 119:17
134:2,22 136:14	189:23 190:1	depo 7:7 29:14	depths 115:19
136:17 145:7,22	217:13 244:23	62:8 64:5,16	116:11 118:3
147:2 163:2 202:4	247:21 248:15	75:10 76:14 85:21	derived 245:8
283:4	249:12 254:20	86:9 89:6 95:16	248:24
decisions 150:19	277:19 303:11	97:13 105:22	describe 115:3
283:6 306:2	degree 191:12	116:2 141:1 160:8	156:3,17 192:5
decline 204:17	demand 139:21	166:14 172:18	267:22 269:3,9
decor 280:24	141:16 144:1	deponent 9:8	280:16 290:20
281:4	197:16	11:19 40:7 118:24	described 78:24
decree 130:3	demographics	297:20 298:7,13	79:11 109:17
decremented	228:13	318:1	155:9 167:2,3,23
245:5	demonstrable	deposed 212:1	249:9 256:16
deduct 263:16	82:12,15	deposes 7:3	265:13 269:7
deed 187:10	demonstrate 46:1	deposition 1:13	describes 153:11
deep 77:10,11,12	47:22	3:22 5:18 6:1 8:11	253:4
116:10,10 117:20	demonstrating	10:11 11:12 12:8	describing 153:20
119:6	305:20	12:12 15:12,24	154:1 156:10,12
deeper 67:19	dep 102:22 103:15	16:13 21:24 22:9	235:12 277:24
121:19 125:24	106:21 116:23	22:21 23:11,16,17	description 12:20
128:23	168:6	24:3,5,8 25:22	

[desired - disclosures]

Page 15

desired 147:20 149:21	273:2 274:14,24 281:11,24 282:9 282:13 303:13	173:4,6,7 183:23 186:7,11 188:24 189:3 194:24	229:15 232:13,20 255:17 259:8 260:16,20 262:23
despite 93:11		195:1,1,18 213:23	263:4,14 264:15
detail 27:16,23 28:7,10 285:10	determined 90:20 125:8,18 197:12 224:18 243:23	227:19,23 228:14 229:12,21 232:1 251:14 259:18	265:4 271:7 272:16,21 275:17 276:3,9 288:20
detect 69:2,18 258:13 309:9	265:4	267:5 277:12 292:24 293:6 294:8 295:4 296:1	276:3,9 288:20 296:9,14 299:6 300:2 312:14,15
detectable 69:4 287:9	determining 57:9 64:22 137:19 214:1 224:17	313:4	314:11 315:9
detected 20:10,16 30:1 68:7,16 70:20,21 235:16 238:18 307:2	244:15 269:23 283:15 291:13,19	differently 54:14 100:6 267:8 309:7	direct 39:13,19 225:21 316:2
detection 186:16 235:21	develop 26:7 75:2 153:5 216:4 231:15 237:9	difficult 131:13 136:12 166:21 200:10,15 201:4	directed 15:17 directly 57:24 98:20 143:10
determinant 198:7	274:6 276:14	214:21 215:9 276:19	187:17 229:11
determination 64:14 122:23 188:17 263:14 285:16 306:8	developed 302:23 developing 230:22 238:14,20 254:11	digit 66:12 diligence 163:8 223:23 224:14	disagree 161:12 161:22 164:17 181:13 207:5 271:20
determinations 245:20	deviation 65:6 differ 54:13 73:13 73:16 195:10	diminished 300:5 diminishing 199:11	disagreed 93:4 disagreeing 58:12 109:12
determinative 282:20,23	difference 51:4 135:7 189:1 228:1 255:7,8 292:15 293:10	diminution 15:2 16:16 175:14,23 176:9,20 177:4	disagreement 58:5 disamenities 207:19 242:13 298:22 300:4
determine 18:24 53:11 56:9 57:12 57:14,16 59:6,12 73:21,23 74:10,12 75:4 81:9 98:5 111:12 123:16,20 124:2,13 132:1 134:1 136:19 137:4 142:21 147:15 148:10,13 152:18 166:10 167:4 180:9 187:5 188:1 203:5 223:16 226:1 231:22 239:4 246:21 248:3 257:8,18 266:5,7	differences 43:7 47:2 48:7 49:12 52:9 58:17 73:20 192:12 251:11 254:4 303:22 315:1 different 33:2 42:9 46:24 50:24,24 65:3 67:4,5,7,7 73:7 82:8 84:21 87:24 102:17 103:7,8 107:23 108:13 112:24 113:1 127:7 169:17 172:21	178:1 181:1,3,8 183:2,18 184:16 185:11,19 186:1,7 186:24 188:3,6,21 189:1,5 197:12 199:15,22 203:16 205:9,12 206:2,16 206:19,20 207:2 207:12,14,17,20 208:10 209:11,23 210:1,12 214:2,6 216:12 217:2,11 217:19,21 218:5,8 218:17 228:8	disamenity 198:15 207:8,8,11,13 255:19 285:4,7,24 286:5,15 287:24 292:21 295:11,14 299:20,23 312:3 discharge 286:21 discipline 255:24 disciplines 136:18 disclose 310:10 disclosed 249:20 260:2 disclosures 249:2 310:5,14

[discount - easier]

Page 16

discount 12:18 85:10 discovered 162:3 253:18 300:3 discovery 7:11 25:11,15 26:10 113:10 114:11 140:22 142:15 145:19 162:17 163:18 201:23 202:24 218:2,5 258:19 259:13 299:9 discretion 58:2 discuss 208:7 266:17 discussed 46:8 165:13 167:17 241:9 262:9 discussing 15:11 69:15 81:6 discussion 306:18 discussions 122:21 126:3 disposition 210:9 dispute 211:3 dissimilar 184:10 191:13 314:20 dissimilarity 55:5 distance 195:6,21 195:21 286:8,13 286:17 295:13,14 295:14 distinction 294:12 distinctions 284:17 distinguish 206:9 distribute 58:23 274:22 distributed 142:10	distribution 65:16 105:24 district 1:1,2 5:22 5:23 diverse 194:14 271:3 diversity 277:1 document 4:8 249:10 documentary 127:16 documentation 114:1,2 documents 9:8 222:17 297:10 doing 33:13 38:7 46:15 50:1,2,2 64:7 91:5 93:15 94:13 95:21 97:15 98:10 101:9 102:2 102:7 104:4 108:10,21 109:14 159:12 163:7 183:13 185:7 214:19 233:2 239:7 246:23 257:6 275:11 292:3 299:16 305:21 dollar 88:10 264:9 dollars 119:23 274:22 dolmetsch 112:12 113:5 domain 285:21 domestic 50:22 dominate 58:16 double 164:14 260:17 261:6,12 261:20 263:23	downs 293:14 downstairs 222:11 dozen 225:2 dr 3:17,20 10:5,19 18:1 28:4 32:16 32:19 35:7 36:1,7 37:1,4,10,24 38:8 39:22 41:8 42:2 42:11 43:12 44:2 44:11 45:13 46:17 46:18 47:17 48:20 49:5,6,10 53:8 58:9,24 59:3,4,5 71:17 72:15 73:2 79:5 85:9 87:9,14 89:12,16 90:7,12 92:9,17 93:4,11 107:18,23 110:6 110:14 111:23 112:4 114:14,19 114:23 119:13 120:8,10 129:22 132:19 133:2 139:10,16 140:9 141:7 147:10 150:1 151:1,11 161:2 162:12 173:21 181:5 183:20 184:8 270:6,11,14,24 271:12,15 272:8 272:12,24 273:7 274:19 276:4 292:18 296:13 301:4 302:4 311:19 314:16,16 314:18 drafted 182:3 dramatic 210:23 draw 37:14,15 48:24 85:15	128:24 drawn 222:17 227:11 drill 67:19 123:20 128:22 234:15 drilling 124:1,11 124:13,24 126:21 drinking 67:21 173:17 drive 205:1 driving 137:7 drop 71:13 due 100:17 163:8 207:18 223:23 255:18 dug 287:14 duly 7:2 dummy 277:6,9 duration 80:3 dynamic 200:10
			e
			e 1:13 3:1,9,11,14 3:21 5:1,1,18 316:7 317:1,1,4 318:10 319:1,1,1 319:24 320:1,1,1 320:24 e.coli 20:9,16 21:9 23:19 27:5,11 28:21,23 30:1 32:24 33:11 e.coli. 20:6,9 e.g. 268:12 earlier 79:4 82:1 126:3 138:21 178:5 201:19 238:23 265:20 275:13 289:22 291:20 312:9 easier 126:13 197:10 225:18

easily 54:24 east 209:7 easy 48:4 eat 46:20 47:6 econometric 200:11 214:20 215:9 216:4 256:19 257:17,19 258:5,7 265:19 econometrics 191:24 economic 14:2 16:8 132:23 205:22 268:10 287:22 302:15 economically 84:22 100:19 167:23 168:1 economics 127:4 131:23 134:12,23 136:18 155:17 175:10 189:23 255:23 303:21 311:16 313:16 economist 13:19 14:5 95:19 98:11 100:18 136:8,11 136:23 168:17 214:14,20,22 219:13 237:18 economist's 135:6 economists 12:24 13:8,11,14 16:12 100:2 137:2 177:24 178:18,20 246:2,4 256:5 265:23 267:9 economy 293:23 edward 3:5 7:1 8:7	effect 12:20 15:6 89:17 112:14 160:4 198:14 206:9 232:24 233:3 238:21 239:4 274:12 292:21 294:22 299:9 300:14 302:18,20 303:15 305:3,4 314:4,6,8 314:10 effective 58:18 94:21 129:14 166:15 effectively 73:7 236:6 267:11 271:18 272:3 275:11 295:15 effects 172:23 203:15,18 206:1 268:16,21 273:11 311:20 efficiencies 115:17 efficient 58:18 88:19 189:19 276:12 efficiently 88:4 271:18 effort 95:21 efforts 25:1 egg 205:6 eight 69:3,17 either 10:7 74:24 101:19 102:3,7 205:15 206:3 226:22 263:12 270:18 308:9 ejoselson 2:8 elaboration 184:5 elasticity 141:16	electric 85:12,15 115:4 116:21 117:10 119:7,22 electricity 42:17 48:11 114:16,18 115:12,21 eliminate 119:24 230:1 email 135:16 emailed 135:14 embedded 229:2 emily 2:4 6:20 7:23 12:2 24:9 57:23 89:8 92:13 98:14 220:2 employed 273:10 273:13 317:15,18 employee 317:17 energy 115:9 engineer 166:5,18 engineering 67:21 122:9 130:20 131:3 166:17 engineers 126:4 enhancements 164:11 165:8 entered 21:11,13 223:2 238:16 entering 231:19 274:1 entire 56:6,18,21 264:9,14 300:19 entirely 98:22 138:10 271:20 entirety 47:15 59:9 308:16 entitled 25:6 98:17 160:13,15 161:21 172:11 enumerate 90:6	environment 68:24 127:5 306:1 307:1 environmental 127:4 131:23 151:19 155:17 197:23 198:5 228:22 232:24 233:9,20 234:6,17 234:24 241:24 266:14 268:13,17 268:21 269:2,14 271:4 273:8,11 298:22 299:20,22 300:3 301:9,18 302:12,14 304:18 304:20 308:17 310:15 311:16 epa 268:15,20,24 269:9,17,22 270:2 287:20 314:17 epa's 268:10 epidemiological 138:4 equal 17:2 98:5,9 285:4 equals 90:24 91:1 equation 79:22 283:14 equipment 60:6 60:16 61:6,20 74:22 77:1,2 83:2 84:10 86:2,23 93:21 94:2 95:14 95:24 96:5,6,19,21 97:1,9,11 98:3 103:13,19,24 107:20 108:2,12 108:24 109:3,4,10 109:18,20 110:3,8 110:23 111:1,3,8
---	--	--	---

111:14 equity 105:16,18 105:24 106:4,6,16 204:8 206:4,24 238:6 260:12,14 260:18,19,23 equivalent 153:8 ergo 236:3 errata 318:5 erred 107:19 errors 45:22,23 espousing 24:16 esq 2:4,12,13 essentially 249:21 260:17 establish 78:15 184:10 221:24 222:6 established 308:1 establishing 183:1 254:15 275:16 estate 12:16,19 196:8 198:17 199:21 222:8 226:2,7 231:20 237:19 292:16 293:13,24 estimate 21:12 26:21 27:18,20,21 29:16 43:14 64:8 66:21 83:11 98:1 115:14 128:11 129:24 130:12,20 131:1,3 133:24 134:17,19 136:23 139:7 176:13 239:17,23 240:13 241:23 248:22,23 249:4,6 250:10,21 253:4 254:19 255:17 258:22	259:6 261:11 263:17 273:11,13 274:21 276:3 278:3 estimated 90:1 115:3 120:11 312:14 estimates 51:12 115:6 176:16 177:12 239:21,23 240:18,19 241:19 246:12 247:14 249:24 250:15 251:7,8,21 263:5 263:10 264:7,22 273:20,21 274:3 estimating 73:9 119:20 255:21 271:7 272:16,21 278:24 estimation 271:16 et 1:4 5:20 111:18 151:20 228:14 281:7 evaluate 95:3 118:2 134:20 140:17 149:6,8,13 149:16 209:10 232:19 268:16,20 evaluated 61:13 evaluating 4:4 17:18 23:21 33:3 199:14 246:3 267:3 269:4 309:9 evaluation 153:9 261:8 event 38:23 136:21 186:2 196:20 197:2,7,19 202:16,19 217:22 236:13,14,21	254:22 289:3 300:11,13 events 241:24 evidence 114:22 122:3,13 127:16 139:17 243:22 248:19 249:22 282:3 308:9 317:7 exact 61:10 66:8 exactly 62:3 97:14 192:8 234:16 302:7,7 examination 3:6 8:1 examined 7:17 161:4 example 13:17 20:4 53:12 66:12 71:12 76:17,22 78:14 88:1 93:16 101:3 103:3 106:5 108:14 121:19 129:23 137:6 147:16 168:8 190:1,18 202:12 204:13,23 205:23 219:20 223:2 224:11 250:10 252:7 258:14 266:6 279:3 280:18 283:12 288:12 291:3 292:17 294:19 295:13 302:21 304:5 307:7 308:10 313:1 examples 191:3 194:20 221:22 exceed 304:17,21 305:1 307:24	exceedance 304:9 exceeding 307:11 exception 112:6 309:11 exceptional 237:23 238:7 exceptions 309:19 excerpt 12:14 16:14 excess 167:12 exclusively 223:8 223:11 excuse 105:17 271:1 291:12 executive 317:8 exhibit 3:11,13,15 3:18,22,24 4:2,8 9:18,24 10:4 11:16,17 12:1 17:3 22:16,16 26:19 45:6,10 49:9 114:17 119:11 152:2,4,9 178:11 216:17,20 216:20 248:5,15 268:2 284:13 312:8 exhibits 5:3 9:5 exist 254:4 315:1 existed 140:10,11 existence 220:19 existing 139:22 290:23 exists 165:22 expansion 60:21 expect 16:24 29:5 31:3,23 75:11 88:18 96:12 98:8 102:24 103:4,7,9 116:11,15 138:2 140:12 178:2
---	--	--	--

[expect - fair]

Page 19

187:8,24 188:3 189:4 269:18 277:15 285:3,6 286:18,19,24 296:10 299:14 313:3,8 314:1 expectation 14:16 76:15 109:23 112:16 expected 42:17 43:21 83:5,24 84:2,16 85:7 86:13 87:1 93:15 101:1,7,8,11,24 102:12,23 103:9 109:21 175:16 187:1 276:9 286:7 expecting 289:11 expenditure 135:20 expenditures 107:9,11 expense 18:2 84:20,21 85:3 100:3,12,16,20 expenses 82:12,16 93:19 expensive 50:4 77:1 121:6 143:8 165:16,18 175:3 experience 50:20 51:5 76:10 89:21 103:1 189:5 204:19,20 205:3 213:9 313:4 experienced 50:17 51:24 57:10 214:3 216:13 262:24 263:4 experiencing 49:19,21 132:23	203:15 expert 3:11,13,15 3:16,18,19,24 9:10 33:14 34:6 104:22 106:15 138:1 169:4 210:7 234:18 240:17 298:11 experts 249:16 250:5 expires 318:20 explain 202:6 272:6 301:12 explained 91:16 93:8 explanatory 255:7 274:8 explicitly 90:14 explore 7:21 explored 140:24 142:6 160:7 166:14 168:6 172:18 express 185:5 199:21 205:23 243:6 244:11 247:23 289:7 expressed 160:18 161:10 174:3 175:22 181:8 186:1 288:13 expresses 258:7 expressing 184:14 243:20 244:2 expression 206:21 207:21 extend 123:6 extended 116:7 extension 306:12 extensively 57:21 59:17 62:8 64:16	116:2 extent 7:20 22:7 24:3 73:16 99:17 176:11 183:17 184:18 188:14 292:20 293:13 306:17 extraordinarily 76:24 80:20 81:19 extreme 279:3 extremely 31:19 extremes 117:1 f f 317:1 face 207:8,11,13 faced 38:16 facility 209:16 286:23 facing 229:21 fact 15:21 29:6 33:1,24 37:24 39:6 46:23 47:2 58:21 62:9 66:3 66:19 79:4 81:2 84:24 108:16 112:1 118:11 147:21 148:16 161:8,24 162:14 162:22 163:6,11 164:8 182:24 214:19 220:8,12 220:15 222:5 224:7,17,19 233:17 238:13 243:24 244:11 245:1,2 260:14 275:15 276:17 288:14 297:23 310:11 factor 54:15 86:1 122:2 150:21	187:16 198:6 202:14 218:10 219:5 277:7 284:19,20 288:5 306:6 312:6 factors 44:16 50:3 54:11,13 57:13 59:24 73:11 74:20 77:19 79:18,21,22 87:22 88:7,12,14 89:24 96:4 114:21 117:6 147:15 148:10,13 149:8 149:16 150:8,11 150:16 151:1 167:2 177:5 186:23 187:6,9,20 187:24 188:2,17 195:10,13 202:9 202:11 206:18 213:10 218:23 229:3 232:24 233:9,20 234:6,17 234:24 235:7 256:7 263:2 268:14,17,21 272:7,13,24 273:5 280:16 282:9,13 287:14 289:22 292:19 295:2 299:7 314:24 facts 176:24 282:3 factually 66:18 failed 107:19 fails 49:10 120:12 failure 47:1 305:1 fair 19:6 52:13 63:14 72:20 74:4 78:22 82:10 84:4 87:9,21 88:4 108:18 263:13
--	---	---	---

281:17 307:3 fairly 39:2 59:23 74:24 109:15 fairness 82:6 faith 25:12 26:10 fallacy 236:2,5 falloff 201:20 202:1,14 203:2,8 falls 268:5 false 25:14 familiar 8:10 192:2 193:9 232:9 236:2 266:19,23 267:2 294:14,16 294:18,23 familiarize 174:16 family 190:12 193:17 194:4 far 111:14 212:5 242:18 fate 234:19 fcrr 1:20 317:22 fears 137:17,18 feasibility 132:1 feasible 67:19,23 122:23 123:2,5 124:4,16 126:5 276:22 federal 152:16 296:22 303:8 308:1 feel 131:12 174:15 207:18 241:3 fell 182:5 felt 16:8,19 93:8 field 50:10 127:3 151:19 fields 221:13 figure 28:18 114:16 122:9,18 279:3	filed 5:22 fill 229:9 final 72:17 298:10 finally 125:8 finance 108:1 109:6 174:4 financed 108:24 financial 14:10 40:21 41:5,21,24 47:8 50:20 51:6 51:24 52:16,19,20 77:5 102:17 147:24 208:3 228:13 239:14 257:13 financially 6:8 36:15 37:17 317:18 financing 87:4 find 8:18 30:11 32:10 71:10 74:5 75:5,14,17,18,22 101:23 117:2 149:2,4 189:24 194:21 211:23 212:10,19,20 219:24 268:2 294:24 finding 125:2 finds 36:1 49:12 224:7 fine 9:22 10:23 77:16 99:19 284:16 finish 8:22 248:9 finished 109:2 156:14 290:7 firmly 174:23 175:7 first 8:8,9 17:7 20:2 22:9 25:22	25:24 29:14 42:11 45:18 53:9 57:22 64:5,16 66:9 68:5 68:12 71:22 75:10 78:3 85:21 86:9 89:6,14 95:16 97:13 99:13 102:22 103:15 107:2 108:8 112:16 116:2,23 118:5,14 126:14 128:8,9 141:1 152:14 154:22 160:8 162:6 165:13 166:14 167:3 168:6 186:22 193:12 249:17 272:5 fish 291:8 fishing 291:6 fit 24:17 fits 83:23 five 313:8,13 fixed 112:3 fixtures 281:7 flat 55:10 112:8,17 112:19 flaws 44:23 46:5 46:24 flooring 281:6 florida 210:21 flow 101:1 108:15 165:23 flows 96:16 108:20 folks 47:9 71:9 78:15 107:24 108:14,23 112:16 121:7,10 122:8,19 123:1 125:18 126:9 127:1,9 129:7 132:13	134:7 138:3 141:14 150:5 172:22 176:19 222:24 228:9 236:20 240:21 257:3 313:1 follow 57:6 138:20 180:17 192:7 253:6 266:3 followed 79:10 124:8 252:16 265:22 following 55:1 196:19 197:2 252:23 follows 7:3 305:6 fool 119:3 foot 114:20 116:10 117:20,22 119:6 191:6 footage 289:17 footnote 67:15,17 179:2,7 285:22 286:4 287:19 288:10 forced 67:11 120:12 126:15,24 127:9 forecast 100:23 291:23 foregoing 318:3 forgot 270:19 form 14:8 33:18 34:15,22 35:14 37:21 38:13 39:10 42:5 49:23 51:9 52:17 54:9,19 68:21 69:7 81:1 84:24 87:17 88:16 94:11 96:8 97:13 123:13 124:7
---	--	--	--

[form - going]

Page 21

125:13 163:21 169:3 172:19 186:18 191:15 194:16 198:2 199:18 203:22 204:4,10 205:14 214:8 218:20 221:8 227:16 228:4 234:9 243:16 259:1 275:6 292:5 299:1 300:9 309:15,22 formal 180:24 200:11 209:3 224:16 formally 273:2 forming 283:22 forms 136:5 formula 19:4 56:17,21 58:23 59:6 83:22 87:20 formulaic 75:1 78:4 86:21 forth 24:4 161:17 forward 70:7 225:14 found 20:8 41:19 41:20 76:22 287:20 311:20 four 9:10 24:11 179:14 180:9 fourth 35:23 89:14 249:1 frame 84:14 309:6 framework 46:7 85:7 87:1 95:2 102:24 109:22 156:8 free 25:21 103:24 174:15	frequency 20:15 20:23 23:7,21 27:10 33:8 65:20 100:9 196:19 197:9,15 201:20 202:1,15 203:2,8 frequently 20:18 21:9 front 137:8 271:22 full 8:6 17:7 20:2 31:21 53:10 72:18 139:12 184:17 186:22 191:18 263:24 272:5 fully 108:6 110:24 fun 182:19 function 115:8,11 238:13 278:15,18 286:7,16 functional 204:16 fund 38:2 further 98:14 130:21 202:3 315:22 317:16 future 55:20 71:11 122:11 123:24 124:11 307:2	general 35:3 188:2 251:4 255:23 310:1 generally 197:21 263:9 266:12 292:3 304:11,20 307:23 308:3,8 311:20 313:17 generates 188:6 generating 153:13 generation 251:12 geographic 228:14 georgia 210:14,20 getting 21:23 32:23 80:18 81:17 121:4 179:12 222:9 260:10 give 8:15 45:2 89:9 92:19 106:17 110:18 171:15 184:4 196:1 223:13,15,21 256:18 286:2 289:23 292:17 given 24:20 25:14 27:14 44:15 59:24 88:20 101:7 103:6 136:20 137:24 138:5 141:21 143:15 159:13 167:5,5 168:12,13 171:10,14 190:15 200:10 220:19 239:13 281:16 gives 103:24 giving 145:11 gledhill 2:13 6:16 6:16 go 5:16 8:12 40:4 40:5 50:11 52:24 61:16 70:1 71:15	74:16,16 82:24 85:23 88:24 91:3 91:9,19 95:20 98:13 104:3 114:11 118:20 121:3,22 129:15 158:2 165:1,16 179:19 180:5 181:14 182:2,7 185:6 192:24 193:9 195:7 198:13 199:3 202:2,3 207:9 208:16 212:21 213:19 218:11 225:14 237:14 258:11 278:19 286:3 goal 33:15 152:22 gobain 1:8 5:21 6:14,17 38:1 god 302:24 goes 89:6 203:19 227:8 going 5:7 8:12,19 10:7,21 12:17 18:23 22:6 24:2 25:1 36:19,20 40:11 49:22 52:22 53:2 57:20 61:17 61:18 72:9 80:13 81:1,11 82:7 85:23 88:5,10,23 88:23 89:8 92:7 94:16 104:10,21 106:16 109:3,24 111:12 123:19 124:21 127:17 131:10 136:1 138:15 142:24 152:24 154:21
	g		
	g 5:1 gain 207:19 gallons 114:20 116:13 117:21,22 119:7 game 263:21 garage 280:1 gasoline 294:20 gather 221:21 224:19 gathers 221:17 gayle 2:24 6:3		

[going - hmm]

Page 22

159:5 160:7 162:22 164:17,22 168:10 172:22 174:13,16 182:11 182:18 183:19 184:20 185:6 188:13 198:11 201:11,13 203:12 212:3,15 218:21 222:5,5 225:13 248:17 256:14 258:16 260:11,13 262:3 263:15 264:19 271:19 280:2 282:10,11 282:15 287:12 299:17 305:16 307:19 312:7 313:3,4 315:16 316:5 good 5:6 8:3,4 12:4 26:10 29:16 155:3 170:3 184:21 204:24 226:22 285:18 294:15 302:24 goods 98:7,8 gotten 92:21 285:20 governor 317:9 grab 52:22 granted 130:5 131:5 132:8,14 great 65:2 219:5,9 258:14 greater 13:12 gross 32:1,7 ground 60:17 81:2 99:17 165:15 groundwater 4:4 4:6 10:9,10 15:17	15:21 17:4 31:14 35:19 36:2,10 37:6 38:17 50:7 60:5 68:8,17 69:16 71:4 139:22 151:17 153:10,12 154:9,19 155:12 155:22 156:5,7,19 157:17 158:11,20 160:4 164:9,18,23 165:17 168:15 169:11 170:1,11 173:2 193:6 208:19,24 211:7 235:17,22 286:24 287:9 288:1,5 296:15 310:8 311:2 312:21 group 188:12 202:21 215:22 277:15 groups 173:7 200:19 272:3 273:14 guess 14:9 49:24 95:17 149:23 178:10 201:6 202:2 204:1 219:15 293:4,17 guidance 309:10 309:12,22 guide 266:24 guidelines 268:10 268:16,20 269:3,9 269:22 305:3 gwc 5:24	hand 275:22 276:7 292:8 299:4 handed 9:4 11:24 45:9 152:8 248:14 handful 141:14 happen 69:11 70:23 71:1 127:17 270:13 happened 80:10 82:5 94:19 109:2 217:16 289:3 happens 84:18 happy 24:23 92:19 111:21 298:16 harbor 211:7,9 hard 211:23 212:9 212:19 231:7 harm 37:16 38:2,6 164:19,24 167:5,8 167:12 206:10 288:13 harmed 46:3 86:20 110:22 301:7 309:23 harms 155:22 164:13,16,18 165:10 hausthor 252:8 253:17 hausthor's 252:20 hazardous 152:21 286:6 head 71:16 header 311:15 heading 300:23 311:1 heads 176:14 health 20:5 38:18 128:13,21 129:4 136:15 170:3	hear 237:24 264:5 heard 119:4 122:22 hedonic 16:11 79:6 194:18 200:12,15 216:4 256:19 268:11 270:11 277:16 283:7,10,14 held 6:1 237:7 help 65:9 helpful 65:8 227:12 helps 96:24 hesitating 192:21 heterogeneity 194:21 277:2,14 278:2 heterogeneous 194:19 195:11 high 27:19 76:24 85:10 229:2 250:14 266:9 higher 258:23 261:11 286:22 highest 249:4,6 250:15 252:9 253:4 highlighting 184:11 hire 171:18 historical 147:16 148:16 149:17 150:2 151:7 historically 249:5 249:7 253:5,23 history 151:7 257:24 299:12 hit 52:20 hmm 100:14 114:24 115:2
	h		
	h 3:9 319:1 320:1 half 225:2 halfway 31:21		

[hmm - impacted]

Page 23

177:16 179:10 235:19 250:12 252:11 253:20 270:8 301:3 hoc 236:3,3 home 13:18 14:17 14:18,19 15:13 16:1,2,7,21 31:1,4 42:18 104:2,8,14 104:18 105:6,16 105:18,24 106:5,6 106:16 143:8,15 148:19,20 174:4 174:24 175:7,8,23 176:2,8 179:4,6 190:12 193:15,17 195:4,15,19 200:7 203:16,19 204:7,8 204:12,14,17,18 204:21 206:3,4,24 206:24 207:9,22 207:23 208:3 220:20 221:4,15 221:18,23 222:4 222:12,13 224:12 224:13 225:5,24 226:9,15 227:20 227:22 228:2,23 229:4 230:1 231:23 232:5 233:4,7,8,13,15 235:16 237:10,21 237:22 238:3,6,10 238:17,19 239:2,4 239:10,12 241:19 243:21 244:3,7,16 244:19 245:3,7 246:3,12 247:24 250:11 252:3,20 253:21 254:2 256:18 257:19	258:17,23 260:10 260:11,12,14,18 260:23 261:2,3,10 264:3 276:12 277:22 279:19,20 280:7,9,14,16 281:18 282:1,4 283:2 284:16 287:20 288:7,19 290:12 291:17 292:21 home's 223:12 238:21 homeowner 70:4 95:18 105:4 205:20 214:24 226:6 235:10,14 homeowners 116:17 146:6 175:4 207:7 235:5 246:10 homes 13:1,9 14:6 14:15 105:2,3 120:14 141:8,10 142:8 143:10 148:16 150:15 175:2,16 178:21 181:24 197:2 200:3 205:2 223:3 228:16 233:1 237:15,21 239:7 239:18 243:7 244:12,21,22 245:9,12 247:20 254:15,19 262:17 275:8 homogeneous 194:14,19 honest 231:6 hook 143:15	hooked 121:4 128:12 169:19,22 hooking 126:6 127:6 142:1 144:24 hookup 141:3,19 142:15,17 145:5 145:20,24 hope 24:1 45:1 260:5 hopefully 38:22 48:4 49:5 129:4 hot 52:23 hotel 182:15 hour 71:21,22 72:3 hours 26:5 242:21 house 11:22 88:5,5 142:9,11 191:9 192:23 240:11 242:17 household 40:23 62:4 83:2 109:4 119:16 141:20,20 143:1 144:16 168:20 houses 192:10 housing 205:1 hundred 119:23 hypothesize 134:5 hypothetical 69:10 120:4,5 127:23 136:3 138:10 265:12 i icebreaker 11:9 idea 58:9 107:15 126:6 129:19 142:18 156:6 186:9 221:4 241:10 259:3	identical 60:6 identification 5:4 9:5 11:18 12:1 45:7,10 152:1,5 153:9 187:23 248:6 317:8 identified 150:7 162:16,24 200:20 230:11 231:24 300:1 identifies 269:21 identify 37:10 46:5 149:9,16 150:21 160:1 162:1 188:16 190:14 192:8 193:24 195:12 208:12,18 209:15 210:3,14 266:3 269:10,12 identifying 4:3 ignore 307:17 ignored 265:5 ignores 147:14 230:21 iii.c 48:6 illinois 208:18 292:18 illustrate 44:23 imagine 69:10 100:24 123:5 125:21 204:14 302:21 impact 241:23 273:20,22 274:3 275:20 277:3 285:23 286:5 311:3 312:1,22 313:7,12,18 impacted 186:14 266:14
---	---	---	---

impacts 185:21 268:17 273:14 286:16 287:3 312:19 impaired 248:23 251:6 261:9 impeachment 162:9 implement 171:4 implicated 57:9 implicit 221:3,9 implied 219:12 implies 18:12 imply 148:3 305:2 307:17 importance 269:13 important 8:15 23:20 65:22 67:15 121:9 156:13 180:22 181:5 232:11 244:15 273:5 281:17,23 impression 196:18 improve 96:24 160:2,3 163:1,9 164:4 improvements 269:2 290:1 inability 217:1 inaccessible 153:17 inappropriate 25:10 35:16 46:11 135:23 301:7,13 302:9 incentives 144:17 include 17:19,20 19:3,18 28:22 62:11,12 89:2 90:17 91:12 94:6	109:7 139:6 199:7 226:10,12 280:17 283:8 included 31:7 93:5 97:24 99:1 133:23 includes 248:20 283:15 including 9:11 21:14 42:13 46:9 144:12 148:1 149:17 152:16 153:13 154:8 220:20 249:23 inconsistent 217:3 259:14 261:8 270:6 301:8 302:12 incorporate 16:1 41:13 89:23 177:10 241:2,4 incorporated 196:10,13 219:1 265:7,10 incorporates 109:22 175:24 incorporating 89:24 90:16 incorrect 19:20 26:17 38:16 66:18 155:1 278:4 increase 16:20 98:2 119:21 176:21 255:17 278:2 increased 15:6,12 17:1 174:23 175:6 increases 90:1 278:5 increasingly 273:10	increation 132:3 incur 19:13 30:20 32:6 93:18,20 95:10 102:18 103:5,11,19 120:21 121:3 137:10 264:20 incurred 14:3 17:9 18:16 22:12 101:12 incurring 14:11 indefinitely 67:12 71:5 indiana 209:15 indicate 179:23 198:4 indicated 276:17 indicates 7:11 234:2 252:9 277:23 indicating 132:22 indicator 139:20 individual 19:6 44:15 48:7 55:15 57:2,18 59:13 72:21 73:20,24 74:9,13 77:19 79:18 85:12 86:6 87:4,11 88:7,13 93:13 95:10 97:7 102:15 103:10,18 106:1 120:5 123:18 132:2 145:22 146:6,13 147:7,18 148:18 148:21 149:18 184:24 185:3,20 188:13,13 194:9 195:15 199:15 200:6 223:9 246:10 247:12	255:15,21 256:2 258:11,15 262:21 268:22 269:4,17 269:23 273:4,24 274:15 275:1,7 276:11 291:14 306:6 308:19 312:13 individual's 57:14 57:17 59:7 80:22 81:21 136:20 137:16 individualized 45:19 47:1 48:17 48:21,23 56:24 58:11 59:12 188:18 272:14 308:12 individually 1:4 44:15 individuals 29:21 29:23 32:17,20 36:15 41:20 54:13 56:13 57:15 61:11 61:19 103:1,4,7 105:2 106:10 121:2,13 122:5 123:8 125:5 127:18 128:2 130:13 131:2,10 138:24 146:14 150:15 156:22 169:19,22 170:23 231:18 243:6,19 284:8 industrial 194:5 industry 301:24 infer 291:9 inference 37:14,18 252:12
--	--	---	---

inferences 227:11 inflation 237:19 inform 177:17,24 199:8 232:15 information 33:23 45:3 55:21,22 66:23 67:1 90:18 92:15,17 99:11 130:17 143:14 159:21 163:15 230:21 231:13,21 232:4 234:1 237:8 238:14,22 239:4 241:5 243:4 244:14 245:8,15 245:19 250:3 264:21 285:15,19 290:23 292:6 infrastructure 168:3 172:15 initial 7:18 15:16 139:18 140:7 196:18 197:18 249:1 injured 153:8 injuries 4:7 152:19 injury 173:1 inorganics 32:1,7 inputs 53:11 56:9 56:10,11,14,16 57:7,12 58:15 75:7 inquire 7:19 124:10 inquired 24:4 59:17 inquiry 25:2,15 123:23 166:9 inside 285:1	insights 120:10 insofar 52:14 250:1 inspect 192:13 inspected 299:13 inspection 31:8 283:2 inspector 31:7 install 112:20 installed 148:17 instance 51:14,21 239:9 institute 266:24 institutions 257:14 instruction 183:23 insurance 42:18 intake 172:5 integral 23:23 intended 157:14 158:8 166:3 170:7 intention 26:11 interact 24:13 interacts 26:2 interest 48:11 105:19 106:11 107:5 141:17 174:8 229:6,19,22 268:4 interested 6:9 17:8 109:16 143:3 268:24 269:17 270:3 315:3,3,6 317:19 interesting 202:7 219:21 interfere 5:13 interior 153:4 190:2 281:18 282:8,22 283:2,9 internet 298:14	interpretation 183:9 intersections 195:22 introduced 51:16 introduction 152:13 intrusion 128:23 inventory 222:23 invest 163:3,23 investing 258:1 investment 110:1 investments 108:1 108:6 163:24 involve 132:2 involved 78:9 122:8 137:9,13 209:6 involves 60:5 210:19 296:13 involving 308:17 irrelevant 288:15 298:23 300:7 island 210:3 issuance 258:9 issue 24:24 31:2 54:6 144:9,17 168:12,12,13 169:17 181:17 200:23 215:14 226:14 246:13 271:23 287:4 293:18 295:13 312:16 issued 317:9 issues 74:9 134:24 172:21 182:14 184:5 197:23 216:16 271:5 273:8 276:1 300:11	issuing 224:12 257:14 italics 36:3 item 14:17,18 22:17,19 23:6 26:13 62:11,12 64:9,13 88:5,6 93:14 97:23 103:4 items 16:6 43:15 43:22 48:15 52:5 60:8 64:10,17,20 91:11,13 163:3 185:16
j			
j 2:4 jackson 3:20 10:19 58:24 59:3 79:5 181:5 183:20 184:8 270:11,14 270:24 271:12,15 272:8,12,24 274:19 276:4 284:12 302:4 jackson's 270:6 273:7 301:4 314:18 james 1:4 5:20 january 20:4,4 252:19,24 258:18 jason 112:12,18 122:7 jeff 241:16 jill 1:20 6:5 317:2 317:22 job 13:1,9 16:9 178:21 255:12 join 147:2,3 joined 141:15 joining 141:17 146:14			

[jones - know]

Page 26

jones 297:4	144:18 145:10	259:17,23 260:4	260:2,7
joselson 2:4 6:20	146:2,24 147:6	260:21 261:14	knight's 250:10,21
6:21 7:5 12:4,22	149:11,22 150:13	263:8,19 264:4	know 8:10,19
14:7 19:10 22:6	150:23 152:3	275:2 278:12	10:12 18:17,19
22:20 24:1 25:5	154:21 155:13	279:12 280:2	19:1,15 29:10,15
25:19 26:8 28:2	159:6 160:6,15,24	281:20 282:2	29:20 30:8 31:10
29:13 32:13 33:17	161:12,22 162:4	284:13 286:1	31:16 34:16 44:8
34:14,21 35:13	162:11 163:20	288:21 289:19	52:11 55:14,17,23
37:20 38:12 39:9	164:14 165:11	297:4,18 298:5,9	57:5 59:18 61:12
40:3 42:4 43:18	166:13 167:13	298:24 300:8,24	62:20,21 63:23
49:22 51:8,15	168:5 169:2,13	302:6 305:15	64:1,11 67:6
52:8,17 54:8,18	172:17 173:13	306:10 307:13	70:13,17,18 71:6,8
56:7,19 57:4,20	175:18 177:7	308:5,14,21	71:10 80:8,18
58:4 59:14,16	178:9 179:22	309:14 313:23	83:23 94:18,20
61:15 62:7,24	180:1,14 181:12	316:3	95:9,11 96:2
63:20 64:4,15	185:22 186:17	judge 24:24 99:16	98:15 100:8
65:18 66:7 68:20	191:14 194:15	99:22 131:14	103:16 104:6
69:6,19 71:19	198:1 199:17	132:12 161:15	105:3,13,23
72:5 74:15 75:9	201:10 203:3,21	248:3 254:8	106:22 111:13
76:13 77:8,21	204:3 205:14	judged 220:7,11	117:19 122:1,2,16
79:2 80:24 81:24	206:7 207:15	220:14	122:20 123:7
82:13 83:19 84:23	211:13 213:7	judgment 254:24	125:24 126:22
85:20 86:8 87:16	214:7 215:12	311:14	128:16 129:10,14
88:15 89:5 92:7	216:6,17 218:19	jump 174:13	131:23 133:19
92:20 94:10 95:15	221:7 222:20	k	135:9,24 138:2
96:7 97:12 99:6	223:24 224:24	k 1:20 317:2,22	144:3 146:1,4,6,19
102:5,21 103:14	225:12,20 226:17	keep 134:2 236:19	146:20 150:19
103:22 104:10,20	227:4 228:3	keeping 231:5	154:10,13 161:14
105:21 106:20	229:17 231:7,10	key 272:7	162:19,20 168:8,8
110:17 113:21	232:14 233:10	kind 24:23 41:4	171:12 175:21
115:24 116:22	234:8 235:2,23	51:4 60:12 74:21	176:13,14 177:11
117:17 118:12,22	236:18 237:11,13	167:1 195:22	180:5 182:3 184:3
120:3 123:12	238:15 240:9,20	208:9 240:24	184:17 185:7,24
124:6,18 125:12	242:10 243:16	243:3 276:22	186:10,19 190:11
128:7 131:7	244:4,17 245:13	292:4	194:24 195:22
132:11 133:8,12	246:7,15 247:5	kinds 95:12	198:21 200:2,17
133:22 134:4,11	248:7 250:17,23	kit 23:1,3	202:18 214:18
135:22 136:22	251:10,19 252:15	kitchen 281:6	215:23,24 217:20
137:22 138:13	252:22 253:14,24	knew 113:2	219:2 221:18,20
140:23 142:5	254:16 256:4,23	knight 250:9	222:22,22 224:16
143:5,19 144:11	257:21 258:24	258:17 259:8	225:21 226:8,21

227:7 229:8,8 230:13,14 232:7 233:23 234:1,10 234:23 239:11,23 240:1,5,8,10,18 241:7,13,15 242:7 242:18 243:11 247:11,12 250:18 251:12,13 253:1 253:15,16 254:1,3 254:5,6 257:4,22 258:4 259:4,5,19 260:1,6 264:7,18 264:20 269:8 275:19 276:21 285:19 288:8,24 289:1 290:10,14 293:19 296:18,21 297:2,6 298:15 301:23 305:7 306:11 308:7 309:18,20 310:12 311:12 knowing 70:6 240:4 knowledge 11:3 106:6 163:22 236:20 310:13 known 67:22 290:15 kopp 314:16 kopp's 292:18 311:19	lane 151:20 155:9 156:9,10,17 langrock 2:3 6:21 langrock.com 2:8 language 217:4 219:12,14,19 245:22 lanier 210:24 large 149:3 198:24 228:12 256:1,1,6 267:9 271:16 largely 55:1,3 112:2 231:1 larger 13:12 75:6 189:5 263:5 late 137:10 latitude 24:22 laughter 231:11 238:8 law 137:5,11 156:12 184:20 200:1 217:4 219:15,20,22 245:23 310:12,16 310:17,19 lawyer 28:17 79:16 90:10 118:8 118:23 119:2 131:17 132:10 136:1 137:3 185:23 lead 50:3 51:5 186:24 188:3 206:19 209:17 210:5 218:24 leaking 294:21 leave 70:9,14 leaves 31:23 68:18 68:23 leaving 33:19 62:9 70:10	leavittown 192:10 leclerc 208:20 led 218:17 235:7 235:13 left 67:14 121:20 legal 59:18,19 118:18 137:24 219:17 245:19,21 legally 52:11 134:24 136:2 legitimate 73:5 lender 224:12 lenders 224:15 length 23:11 42:24 107:1 140:6 189:20 257:5 258:2 266:11 level 77:17 130:6 131:6 132:9,15 276:11 285:10 levels 32:1,7 70:15 71:13 186:14 187:18 306:21 309:13 licensed 190:5 life 95:24 100:16 111:14 135:13,20 224:21 lifespan 80:4 82:19,22 94:2 96:24 98:2 lift 115:9 lifted 69:16 lifting 115:10 light 168:21 likelihood 276:20 limit 99:10 148:24 305:1 310:9 limited 7:13 67:24 181:13	limiting 15:5 limits 304:22 307:24 line 71:19 225:21 lincoln 2:12 lincoln.wilson 2:18 lincoln1 6:13 line 11:11 12:14 22:17,19 23:6 26:13 62:12 85:21 105:9,12,15,16 130:20 206:5 248:10 260:12,19 260:24 280:3 319:2 320:2 lines 105:18 106:7 106:16 130:23 207:1 list 49:2 60:2,7 61:22 162:1,16,20 163:7,12 195:9 226:1,7,12 listed 117:14 226:4 298:8 listened 186:5 listers 283:13,20 lists 226:3 literal 295:22 literally 236:21 literature 102:2 154:15 168:22 198:4 241:9 258:7 258:12 269:21 276:8 294:6,15 296:6 301:5,13,16 302:9,11 303:21 306:15 307:17,22 311:18 313:16,21 314:1
l			
lack 215:10 259:1 lake 210:23 landfill 198:14 289:13 295:15,16 299:11 landowners 172:5			

litigation 79:1 135:9 229:14 litigations 208:8 208:12 212:4 213:12 little 48:5 87:7 139:21 174:14 178:5 184:4 197:10 227:14 259:7 285:11,13 live 51:23 52:6 95:24 105:2 147:22 169:24 170:10 205:2,2 245:3,6 lived 204:18 lives 207:22 living 176:1 208:4 208:5 280:12 289:17 llp 2:3,11 6:14,17 loan 222:12,16,16 223:13,15,18 224:12 256:18 loans 222:9,24 223:21 local 12:15 202:13 237:19 241:23 284:2,4 303:9 308:2 location 202:20 271:3 lockformer 116:4 208:21 213:14 logic 96:17 98:6 286:11 long 16:10 80:7,13 82:16 179:11 197:7 211:3 256:24	longer 40:9 68:7 68:16 70:20,21 84:14 94:2,17 160:4 204:15 305:17 315:3,6 look 15:20 17:5 18:15 20:1 35:18 35:23 42:10 48:2 49:4 53:7 55:16 55:18,24 57:18 68:3 72:17 89:11 107:16,17 111:22 114:12 137:16 139:9 143:6,8 146:9 147:4,7 158:3 168:17 173:20,22 174:11 177:15 178:4 179:19 180:6 181:21 182:2,8 190:20,20 196:11 197:8,10,18 216:15 220:16 230:10 231:19,21 237:15,17 239:6 243:14 244:13,14 250:8 251:4 252:7 254:9 255:8 258:12 270:4,21 278:22 283:20 291:7 295:9,12 300:22 310:23 looked 21:2,3 177:13 196:9 197:6,17 199:2 232:17 243:10 244:20 312:8 looking 10:14 98:21 107:7 110:20 111:19 119:18 123:3,17	132:18 147:3 190:15,17 198:16 210:22 212:22 216:19 242:5 279:1,2 281:8 282:14 294:4 296:5 299:17 looks 180:10 240:11 loosely 292:12 loss 41:14,16 57:14 121:10 125:10 128:11 129:24 132:23 138:9 154:19 155:11 156:5,19 156:21 168:2,24 169:10 170:6 173:17 177:11 204:2,19,21 205:9 205:11,19 206:10 206:13,15,16,20 207:7,18,18 210:24 214:24 289:1 losses 82:2 138:8 147:24 170:7 200:7 271:16 272:2 288:11 lost 157:16 158:11 166:6 203:23 204:10 lot 13:22 40:9 117:24 147:18 148:24 149:3,19 187:19 191:7 194:24 195:1,3,19 236:20,22 241:17 243:8 277:14 279:14,15,22 289:15 303:1	311:10 louis 209:8 love 11:19 237:24 low 76:24 77:10 80:20,22 81:19 lower 27:18 128:10 182:6 252:13 253:12 lowered 159:16 lunch 72:3 120:7 138:12,16
m			
magnitude 51:10 217:2,11 main 206:1 208:14 209:1 312:19 maintain 61:21 62:2 96:17 120:18 130:22 138:23 maintained 60:4 280:19 maintaining 62:13 77:1,4 95:20 maintains 48:16 48:20,22 maintenance 60:7 61:23 62:6,16 63:24 80:20 81:19 85:18 93:6,14,18 94:1,6,8,19,20 95:10,13,22 96:2,4 96:18,20,24 97:4,8 97:10,17,21 98:1,9 129:17 major 195:22 299:20,22 majority 38:3 175:5 making 56:23,23 136:13 142:15 143:3 159:4 172:4			

188:10,17 253:9 288:23,23 306:2 311:13 313:15,20 313:24 man 34:12 managed 163:14 management 306:3 manner 125:23 map 187:14 march 4:2 12:9 margin 223:15,17 251:17 mark 151:24 293:22 marked 5:3 11:17 45:6,10 152:4,8 248:5,14 market 98:12 111:17 146:10 188:7,8 189:8,13 189:15,19 190:2 196:8,12,22 197:16 198:17 203:16 204:17 206:2 215:15 226:13,14 231:19 232:7,13,15 239:17 241:20,24 266:10 267:4 268:8 277:10 281:14 282:15,18 283:16 284:8,15 291:13,15,18,20 293:1,6,13,19,20 294:4,22 295:21 302:18 304:13 306:8 market's 206:21 207:21 252:2	markets 106:2 200:4 257:11 292:16 293:24 294:5 303:18,23 304:3 marsal 6:19 mass 227:17 257:7 257:10 258:12 massachusetts 1:17 6:3 137:11 211:6 212:7,18 317:10,11 material 10:3 22:1 49:9,14,18 50:16 51:3,7,17 52:7,10 52:14,18 92:15 materially 66:4,20 materials 91:15 92:1,3,11,18,22,24 113:10 114:11 212:6,9 math 33:12 90:9 91:5 179:13,24 180:3 mathematical 92:9 matter 5:20 9:11 11:2 33:15 35:3 45:14 46:11 78:14 98:24 131:15 139:4,7 144:2 148:19 156:23 174:7 234:21 273:2 288:12,18 289:6,22 299:4 301:8,14 302:20 317:5 mattered 183:16 matters 7:17 34:6 160:11 161:4,7 164:11 165:8	286:14 mean 19:13 30:23 44:10 45:5 46:17 68:23,23 70:13 106:9,12 118:21 129:2 166:23 184:2,3 185:11 189:10 194:2 203:23 213:8 215:5 216:20 217:20 219:3 220:5,9,13 222:1 227:24 236:13 240:15 241:14 247:6 271:21 277:5 285:20 291:16 293:5,5 294:14 297:23 299:5 308:3 311:24 means 34:16 51:18 52:11 55:4 57:5 71:2 103:17 127:5 157:15 158:10 162:21 163:7 165:20 215:18 244:6 250:19 252:18 278:7 meant 77:11 measurable 186:14 187:17 measure 13:18 80:9 120:15,19 121:9 127:22 129:24 197:16 241:1 295:10 measured 13:15 128:3 191:7 measures 130:21 167:24 192:1	measuring 16:9 mechanisms 173:5 173:7 media 5:17 median 182:4,6 medical 167:18 meet 281:14 member 16:17 55:15 57:2 85:13 87:5 102:13 104:22 105:5 132:5 135:10 288:19 member's 68:17 68:19 69:5 70:10 70:11 74:13 145:22 members 18:17 19:1 38:4 46:1 48:8 49:8,13,18 50:16,17 52:15 54:4 56:5 60:1 64:9 79:24 89:19 94:7 104:16,17 145:4 146:13 157:2,4 170:8 172:1,12,14 173:18,18 186:8 188:19 214:3 262:17 memorandum 113:7 memorialized 213:2 mendelsohn 211:19 mention 36:24 206:24 mentioned 14:22 79:4 86:19 117:19 123:9 124:12
--	---	---	--

[mentioned - mullin]

Page 30

126:20 201:19 221:15 265:20 309:17 merit 317:2 merits 10:1 22:15 24:5 27:24 28:8 28:15 40:16 89:7 160:18 161:10 178:6,11 180:23 183:14 193:5 met 92:21 meters 112:20 method 25:9 46:21 46:22 47:14 88:19 89:1 153:21 155:8 155:21,24 156:2 156:11,18 221:5 226:20 227:2,7 245:14 267:3,16 267:23 269:4,10 269:21 270:12 276:4 292:9 methodological 44:23 64:11 166:7 methodologies 24:15,19 25:9 266:13 methodology 14:21 23:20 24:6 25:7 33:2,6 39:1 58:10,14 77:23 92:11 98:4 101:17 101:19,22 107:10 150:20 199:13 200:6 213:5 291:13 methods 13:20,23 13:23 16:8 86:20 124:3,14 177:20 177:22 213:18 220:20 221:14	226:16 227:18 240:5,6,18 244:6 268:12 269:7,12 microphones 5:9 5:12 middle 112:1 114:13 216:23 middlebury 2:6 miles 193:22 military 303:1 million 222:14 mind 107:12 176:12 231:14 236:19 305:8 mindful 7:9 minds 136:14 177:11 211:15 218:6 229:9 mine 8:9 minimum 63:15 161:13 308:18 minneapolis 296:20 minnesota 298:10 minus 205:17 minute 182:13 286:1 mischaracterizat... 34:12 36:6 mischaracterize 34:17 35:4,11,16 mischaracterizes 35:7 mischaracterizing 34:24 misentered 279:4 misleads 220:21 mispronouncing 148:5 missed 249:15	missing 179:16 mistake 297:21 misunderstanding 159:7 misunderstands 112:4 mix 227:17 295:5 296:2 mixed 194:7 mm 100:14 114:24 115:2 177:16 179:10 235:19 250:12 252:11 253:20 270:8 301:3 model 12:20 59:9 59:10 75:12 83:1 83:4,6 85:7 86:12 86:16 88:12 93:7 102:11 129:20 133:16 134:18 157:10 194:18 196:15 200:12,15 200:22 201:2 202:5,10,18 214:20 215:9,18 216:2,5 246:20 258:5 267:12 275:20 276:14,19 276:23 277:4,10 277:16 278:6,14 283:7 modeled 157:8 206:12 modeling 215:17 models 79:6 283:10 modifications 67:20 126:12 modified 24:18 123:9 126:21	modify 126:17 199:8 moment 103:12 218:4 236:21,23 247:22 286:2 306:18 moments 28:9 monetary 3:13 72:20 87:10 120:15 183:1 275:16 monetizing 268:13 money 95:20 127:13 171:10,16 172:14 200:18 204:9 261:2,3,18 261:20 monitoring 167:19 monthly 84:21 100:2,11,19 moot 19:23 morning 5:7 8:3,4 9:16 26:5 137:7 178:17 mortgage 105:5,6 105:11,13 174:5,7 225:4 239:9 258:1 mortgages 105:14 105:20 224:20 257:3,4,11,15 258:9,11 motion 161:15 move 63:9 182:18 213:23 305:9 movement 313:5 moves 68:24 moving 19:14 41:21 47:9 53:14 67:11 70:6 84:2 mullin 3:17 4:1 10:5,8,15 17:4
---	--	---	--

[mullin - note]

Page 31

18:1 28:4 35:7,20 36:1 37:1,4,24 38:8 39:22 41:8 42:2,11 43:12 44:2 46:17,18 47:17 48:5,20 49:5,10 53:8 58:9 59:4,5 71:17 72:15 73:2 87:9 87:14 89:12 90:7 90:12 93:11 106:23 107:23 111:23 112:4 114:14,19,23 117:12 119:13 120:8,10 129:22 132:19 139:10,16 140:9 141:7 151:1 151:11 161:2 173:21 mullin's 32:16,19 36:7 37:10 44:11 45:13 85:9 89:16 92:9,17 93:4 107:18 110:6,14 133:2 147:10 150:1 161:2 162:12 169:16 multifamily 112:7 multiple 63:2,3 74:3 147:14 148:10,13 273:12 273:19 276:15 277:4 278:16 300:3 municipal 12:17 14:4 15:8 17:1 19:13,14 36:13 40:20 41:9,21 46:4 47:10 50:4 50:18 52:2 53:15	67:11 76:11,19 77:6 84:3 111:15 120:1,14,20,22 121:14 122:5 126:11 127:6,12 127:23 128:4,13 128:18 129:5,7 130:2,14 131:2 132:4 139:14,16 139:23 140:3,19 140:21 141:5 142:2,12 143:4,16 143:18 144:16,21 145:3,6,9,20 146:15 147:17,23 148:4 149:4,7,15 149:18 150:5 151:7 169:9,19,23 170:2,9,13 174:24 175:3,17 176:7 262:15 263:6 290:12 313:5 municipality 145:1 n n 3:1 5:1 name 6:3 8:6 296:19 297:2 named 132:20 133:5 216:10 231:14 232:18 243:1 244:10 248:20 283:23 national 293:14 native 152:17 natural 152:15,20 153:5,21,22 154:8 154:17 155:3,10 nature 208:13 near 187:16 299:20	nearby 141:11 nearly 48:22 119:22 necessarily 233:23 253:8,11 271:24 278:3 necessary 7:21 24:11,12 25:20,20 38:18 41:22 99:18 157:24 158:21,24 159:13,22 163:17 163:18 need 11:5 18:17,19 18:20 19:1 40:1 44:14 45:20 57:18 59:11 62:21 63:11 64:1 70:1 87:20 92:15 94:19 95:11 96:3,20 97:9 99:9 109:7 111:13 121:21 123:7,23 124:10 127:13 149:8 150:18 152:17 159:17 161:16 163:4 164:1 170:14 174:15 187:9 199:11 203:4,5 208:15 226:21 233:18 234:3 237:9 260:7 264:11 281:9 285:16 307:8 315:12 needed 108:2 130:22 needs 39:22 84:20 97:24 108:22 negate 147:23 negative 285:5 286:7 290:6	negatives 290:4 negotiations 209:22 neighborhood 190:22 274:11 neighborhoods 195:1 314:19 neighboring 287:6 287:8 neither 8:8 50:1 71:11 91:14 139:8 317:14 net 49:20,21 50:18 96:14 97:17 174:6 261:19 269:1 nets 94:15 97:15 new 2:16,16 22:1 23:12,15,18 25:2 66:24 105:7 112:1 112:4 153:15 181:6 207:8 211:7 211:9,11 212:13 213:20 234:1 290:24 292:14 nigerian 135:14 135:21 non 69:2,18 309:9 noninterest 146:14 nonsense 261:21 nope 190:10 normally 30:3 north 18:3 40:18 76:1,9 139:13,19 148:14 175:1 203:9 298:1 notary 317:10 318:17 note 5:9 22:10 81:5 89:22 98:14 113:8 116:24
--	---	--	---

147:10 160:7,10 165:3 198:3 266:24 271:22 288:10 noted 71:20 139:17 141:12,13 213:21 318:5 notes 114:8 132:20 268:11 noticed 36:23 notify 187:10 noting 248:8 notion 303:21 nrda 153:4 number 20:20,21 21:8 27:4 44:7,19 47:12,13 53:24 67:4,5,8,24 91:8 91:16 92:16 94:6 123:1 141:8 150:7 152:2 179:1 180:6 180:12 195:9 223:22 266:16 271:16 280:18,18 300:18 numbers 21:6 43:15,16 46:16 47:14,21 48:1 50:23,24 56:12 91:21 96:11 173:6 179:21 195:18 251:14 259:4 nursing 223:3	51:8 52:8,17 54:8 54:18 57:4,21 68:20 69:6 81:1 87:16 88:15 94:10 104:11 117:17 123:12 124:6 125:12 132:11 133:8,12,22 134:4 134:11 146:24 154:22 163:20 169:2,13 172:19 175:18 186:17 191:14 193:12 194:15 198:1 199:17 203:3,21 204:3 205:14 214:7 218:19 221:7 222:20 223:24 224:24 227:4 228:3 234:8 237:11 238:1,15 242:10 243:16 263:8 280:3 288:21 298:24 300:8 objecting 98:15 objection 12:22 22:10 32:13 42:4 43:18 56:7,19 58:6 59:14 61:15 62:7 63:1,20 66:7 69:19 74:15 76:13 77:8,21 79:2 81:5 81:24 82:13 84:23 89:5 96:8 97:12 102:5 103:14,22 104:20 113:21 120:3 124:19 128:7 131:7 136:22 137:22 142:5 143:5	144:11,18 147:6 149:11,22 150:13 150:23 155:13 159:6 162:7 164:15 165:4 167:14 173:13 180:21 206:7 213:7 215:12 229:17 232:14 235:2,23 236:18 240:9,20 244:4,17 245:13 246:7,15 247:5 250:17,23 251:10,19 252:15 252:22 253:14,24 254:16 256:4,23 257:21 258:24 259:17,23 260:4 260:21 261:14 263:19 264:4 275:2 278:12 281:20 282:3 302:6 305:15 306:10 307:13 308:5,14,21 309:14 313:23 objections 99:9,20 118:7,18 146:3 165:12 169:14 172:18 175:19 177:8 objective 13:15 15:1 166:17 167:24 176:24 190:24 191:1,4,6 191:21 192:1 246:5,11 304:12 objectively 33:24 obligation 310:10 observable 139:14 197:12	observation 240:23 observations 230:16 241:3 278:23 295:19 313:9,13 observe 202:7 215:15 242:2 observed 139:18 146:10 201:21 202:4 203:8 268:8 300:15 309:4 obstruct 25:2 obtain 140:5,21 145:5 obtaining 40:23 obvious 120:13,18 228:6 285:13 312:24 obviously 70:4 125:21 172:6 215:6 229:20,22 233:17 265:1 281:14 299:19 occur 85:5 170:8 178:3 occurred 14:12 38:3 159:2 218:5 occurrence 65:20 100:23 occurs 84:14 217:22 236:12 offer 33:15 199:8 217:17 240:14 245:10 247:1 265:9 offered 7:20 11:2 25:3 38:7 180:24 231:23 262:22 offering 23:18 121:10 199:10
o			
o 3:20 5:1 oath 6:7 7:2 8:14 object 14:7 19:10 28:2 29:13 33:17 34:14,21 35:13 37:20 38:12 39:9 40:3 43:4 49:23			

216:1 219:17 222:24 245:21 247:19 offers 27:10 120:10 172:4 offset 96:20 97:10 97:22 157:16 158:10 160:3 164:8,12 165:9 166:6,12 167:7,11 167:11,15,21 168:3,19 169:10 170:14 171:13 offsets 168:24 oh 12:4 68:14 110:19 118:9 157:4 211:10 231:16 297:9 ohhh 225:11 okay 8:13 9:17 10:15,24 11:23 28:19 35:22 50:13 58:7 65:8 72:4,6 72:16 90:19 91:6 91:23 131:20 135:18 138:13 144:14 157:6 178:15 180:4,7,18 181:12 193:19 195:24 201:6 208:23 211:21 212:2 225:12 238:4 250:7 253:6 262:1 297:9 298:4 298:12 310:21 315:24 old 63:3 99:17 212:23 251:22 299:10 older 280:6	omissions 45:22 45:24 once 45:23 100:17 169:22 170:22 172:7,7 182:13 255:8 287:21 ones 19:2 24:17 72:19 87:9 89:3 212:12 213:15 ongoing 200:10 online 231:20 243:2 operate 67:12 70:5 94:16 115:7 operated 60:4 operating 15:6 42:16 60:7 61:22 93:21 95:13 96:5 129:10,11 175:6 operation 62:16 63:24 opine 214:5,11,23 247:3 268:3 opined 40:17 262:20 opines 51:22 opining 40:24 opinion 10:5,19 14:23 15:3,16,19 18:20 23:12,15 27:14 33:16 34:6 36:7 39:3,6 44:12 46:14 58:13,24 59:2,19 74:7 85:23 89:16 93:5 106:17 108:9 109:17,19 110:15 112:15 113:17 130:9 133:13 138:1 169:4 170:12 175:13	176:6 177:18 178:18 180:24 184:24 185:2,5 188:15 193:1,6 198:3 199:7,10,19 199:22 208:9 214:5 215:7 216:1 217:18 219:1,18 230:20 233:3 237:9 238:9,20 239:1 243:4 244:2 244:12,22 245:1,8 245:10,21 246:21 247:19 248:2 255:3,11 259:15 259:18 261:9 262:12,14 265:9 266:20 270:5,22 270:24 275:13 282:18 287:19 298:21 306:16 314:19 opinions 7:13,19 7:21 9:12 22:4 23:23 25:2,16,17 26:3 27:24 28:8 33:20,22 34:5 63:10,12 66:10 85:1 89:7 99:18 160:17,17,21 161:2,9,20 162:12 177:3 181:6,7 184:12,14 186:5 199:8 213:9,11 216:24 220:6,10 230:23 231:15 232:12,19 237:2,4 243:13,18 246:13 247:1 251:24 254:11 262:22 263:3,12,13	283:22 297:11 312:13 opponent's 34:17 35:5,11 opportunity 126:17 128:12 215:6 opposed 33:4 79:1 79:12 88:11 104:8 136:13,16 290:12 312:5 opposite 111:3 159:19 option 122:6 128:20 options 74:3 125:5 164:3 oral 113:18,22 order 7:11 16:24 23:3 25:11,15 26:10 34:18 79:12 95:9 99:15 132:13 149:13 223:12 317:8 original 21:24 22:4,21 24:17,19 25:16 27:20 43:9 63:13 65:4 81:3 83:20 85:1 91:4,9 99:1 102:3 112:23 117:13 121:16,23 130:10 141:13 146:5 147:11 165:1 181:9 originally 39:24 outcome 6:9 88:4 317:19 outlier 230:3 outliers 230:2,12 230:16 279:3
--	--	--	--

outline 315:11 outlined 156:8 output 116:19 117:8 277:16 outside 238:1 276:5 285:1 292:19 overall 83:21 280:21 overestimate 277:16 overestimated 278:9 overlap 22:8 265:2 overshot 83:12 oversimplifies 174:21 overstepping 305:8 owes 261:2 owned 93:17 owner 93:12,17,19 93:23 217:4,10 218:14 219:8 owners 18:7 31:24 60:3 94:1 104:7 104:14 105:3 199:21 214:10 220:4 232:23 ownership 206:14 271:3 owning 15:13 16:2 19:12 27:19 36:13 174:2,23 176:2 205:17	page 12:11 17:5,24 18:1 20:1 22:13 27:9 30:13,14 31:14,20 35:19 42:10,12 45:16 48:4 49:4,7 53:7 67:10 68:4,5,10,12 68:13 71:16 72:15 81:6 89:11 93:10 98:21 110:18,19 111:22 112:1 114:12 117:15 120:7,10 129:21 132:16 139:9 147:13 151:10,11 152:14 158:3 171:1,2 173:20,24 174:12,20 177:14 178:7 179:2 182:17,20,22 186:20,22 213:19 216:15,22,23 220:16,18 230:17 270:4,7,21,24 272:4 273:6 284:11 285:22 286:4 300:22,24 310:23 319:2 320:2 pages 63:3 107:7 174:18 paid 78:17 108:6 110:24 171:20 193:8 290:11 291:8 painful 39:11,14 paired 267:2,10,14 267:23 pairs 267:12 pals 298:18	paper 59:1 114:6 153:11 155:18,19 155:20 213:2 274:18 papers 230:5 266:16 paragraph 17:7 20:2 30:14 31:21 32:15 45:18 53:10 72:18 89:14 111:24 114:13,14 129:23 132:17 139:12 149:9 151:13 152:12 158:4 173:23 186:22 270:23 272:5 paraphrased 231:2 pardon 152:23 parentheses 46:3 park 2:14 parks 196:5 part 15:11 30:24 65:22 108:8 109:17 162:1,15 172:3 176:9 180:1 213:8 224:2 246:8 283:3 partial 130:3 157:16 158:10 167:7,11,15,21 partially 169:10 participants 228:15 229:5 participate 200:3 particular 8:19 45:23 214:23 222:21 243:11,18 286:19 290:24	particularized 292:10 particularly 277:13 312:4 parties 5:15 7:9,15 79:13 86:21 110:22 130:1 132:22 137:12 229:19 317:15,18 party 6:8 70:3 229:20 266:8 305:12 306:21 309:23 pass 200:22 passage 251:21,24 252:6 passed 113:2 200:13 patchwork 295:19 patently 25:13 pattern 197:8 patterns 257:9 279:2 311:22 313:18 paul 296:20 pause 9:2 93:1 102:8 189:11 213:22 298:20 pay 31:6 54:24 55:10 105:7 140:18 189:9 204:12 256:21 260:24 261:18,19 279:21 281:12,24 282:11,15,21 283:4 310:4 paying 76:19 108:13 109:2,6 129:17 138:22 139:5
<p>p</p>			
p 5:1 p.m. 138:15,18 201:16 262:6 315:19 316:5			

<p>payments 108:5 110:23</p> <p>pays 88:1</p> <p>peer 101:16,18 156:3 241:9 269:20</p> <p>pen 298:18</p> <p>people 28:21,22 29:8 38:21 41:9 51:5 76:9 96:12 112:18 113:2 120:19 124:15 126:6,15,16,18 127:6 128:17,20 133:19 141:4 143:17 144:20,24 148:19,20 150:2 164:20,22 168:18 173:8 176:18 189:8 198:10 200:2 204:11 205:2 208:4 221:10 222:7,10 222:22 223:1,4 224:3,4,8 227:16 237:3 257:7 291:8 294:17 314:7</p> <p>people's 88:22</p> <p>perceive 207:23</p> <p>percent 13:3 16:15 16:17,21 20:7 31:24 32:5,23 33:10 65:11,12 66:17,19 178:23 179:1,5,14,14,17 180:8,9 181:18 222:15 312:15,16</p> <p>percentage 32:18 296:8</p> <p>perchloroethylene 303:2</p>	<p>perfectly 277:21</p> <p>perform 17:21 94:23</p> <p>performance 1:8 5:21 6:14</p> <p>performed 20:18 20:24 23:9 27:11 32:17 35:1 76:6 81:22 85:18 86:7 96:18 293:2</p> <p>performing 95:1 97:21</p> <p>performs 44:6 97:8</p> <p>period 78:18 80:7 82:3,17 88:20 101:2 115:18 199:1 206:13 288:20 300:19</p> <p>periodic 84:13,19 85:3</p> <p>periodically 85:5</p> <p>periods 293:23</p> <p>permanent 129:3</p> <p>permit 272:14</p> <p>permitted 99:16</p> <p>persistent 31:2</p> <p>person 19:12 61:7 109:1 203:19 204:18 207:22 214:23 226:3 287:11</p> <p>personal 112:11 112:22 184:24 217:5 218:15 239:15 258:22</p> <p>personally 145:5 192:13 313:14</p> <p>persons 1:5 188:9</p> <p>perspective 59:21 128:14 129:5</p>	<p>134:12,23 135:6</p> <p>pfcs 296:15</p> <p>pfoa 68:7,16 70:9 70:15,17,19 71:13 139:23 140:22 142:15 145:20 159:23 162:2,17 163:18 164:12,13 164:19 165:9,10 165:15 167:8 168:12,14 186:14 186:16 201:24 202:24 203:2 214:4 235:15,21 238:18 242:8 253:18 258:19 259:10,13,20,21 260:3 286:17 287:4,8,18 288:5 294:22 298:23 299:9 305:13 306:21 307:1 309:13 310:8 311:2 312:21</p> <p>ph.d. 4:1</p> <p>phase 79:7 161:11</p> <p>phillips 2:22 3:21 6:18,18 10:20 11:10 181:4 216:24 220:21 230:20 231:2 265:13 272:6,19 275:22 284:12,19</p> <p>phillips's 270:5</p> <p>phone 113:4,8</p> <p>photograph 192:16</p> <p>photographing 192:22</p> <p>physical 127:5</p>	<p>physically 68:23 70:24</p> <p>pick 5:10 126:10</p> <p>picked 258:15</p> <p>picture 15:1 192:23</p> <p>pictures 192:22</p> <p>piece 15:9 86:2 109:3 114:6</p> <p>pin 182:11</p> <p>pipe 127:14 142:8 142:11</p> <p>place 5:12,15 7:6 137:1 287:22 303:15</p> <p>placed 84:1</p> <p>placing 310:19</p> <p>plain 217:4 219:14 219:19 245:22</p> <p>plaintiff 82:11 87:5 132:20 133:3 135:19 146:22 154:12 156:24 171:5 184:23 250:8,10 252:8</p> <p>plaintiff's 73:24 248:20</p> <p>plaintiffs 1:6 2:9 6:22 7:12 14:3 53:13 54:24 67:10 67:20,24 72:22 73:10,13 75:6,7,14 75:23 76:8,23 77:2 87:11 133:6 154:18 155:11 156:4,18 157:3 175:15,21 176:10 176:12 177:3 182:23 184:6 185:3,8,18 209:12 209:14 216:10</p>
--	---	---	---

228:6 231:14 232:18 234:20 236:17 243:1,13 243:18 244:10,20 245:6 247:10,13 247:17 249:1 251:7,23 254:10 254:14,23 255:12 262:21 263:16,24 264:6,15,18,24 265:3 275:14 283:24 312:13,20 plant 210:4 plastics 1:9 5:21 6:15 pleasant 2:5 please 5:9,11 6:24 8:6 195:8 pleased 315:21 plot 278:22 plots 279:1 plowed 102:22 plumbers 111:20 plume 176:1 209:6 286:20,24 287:2 294:20,22 312:6 plus 90:24 91:1 poet 70:5 71:3 125:6 129:8,9,10 129:16 132:21 133:3,7 137:18 138:6 poets 67:12 71:9 120:12 121:20 124:15 125:6,24 126:15,18,24 127:9,11 129:18 138:23 139:6 point 21:21 27:7 31:16 37:10 47:22 54:12 106:23	107:3 116:1 119:11,12 121:8 150:4 151:2,3,4 188:10 224:4 252:18 286:21 288:23,23 289:9 290:14 298:14 pointed 26:18 144:3 pointing 46:23 54:10 200:7 points 141:7 policy 131:22 144:23 poor 204:24 235:5 population 21:18 26:19,21,22 27:15 28:11 29:19 portion 18:6 26:19 26:21,22 27:14 29:18 pos 245:22 position 54:15 160:11 163:16 positive 290:6 possibility 121:5 126:5 138:6 possible 30:22 55:11 70:9 77:14 77:15 119:5 123:14 130:16 166:18 182:5 possibly 238:24 post 236:3 potential 122:6 125:4 147:24 153:11 199:14 202:13,24 238:21 267:3 283:1 310:11	potentially 204:7 power 210:3 practical 203:15 203:18 206:1,9 279:6 practice 151:19 311:15 preceding 132:17 preclude 147:19 149:19 precluded 71:4 predictable 165:23 predicting 277:21 prefer 13:20 129:5 256:5 285:12 preference 128:17 268:13 285:1,14 preferences 146:7 147:18 148:3,18 148:22 149:18 preferred 143:17 145:8,23 150:5 prejudicial 193:21 premarked 9:4 premise 155:17 prepared 162:2 248:18 preparing 268:10 prescient 55:19 prescribed 317:8 presence 20:8,9,12 30:1 173:3,15 218:3 285:24 286:6 294:7 302:22 303:6 304:10 307:19 311:1 312:21 313:19 present 2:22 6:10 101:3 174:6 179:9	194:1 215:7 248:1 287:4 presentation 96:11 presented 66:23 114:19,22 272:1 presents 91:22 270:24 press 184:20 pressure 42:14 85:4 111:18 125:22 140:12 142:10 presumably 141:19 160:20,21 161:19 228:24 300:15 presumed 304:24 pretty 91:21 109:1 129:13 234:12,16 251:15 298:1,3 prevented 141:4 previous 43:1 58:21 74:18 76:14 121:13 134:15 163:7 173:24 previously 7:20 53:13 60:4 69:15 70:22 89:20 115:6 115:15 151:16 153:16 161:7,10 166:22 203:24 price 13:19 16:3,4 22:24 112:3 174:3 189:18 204:17 226:7 231:22 241:1 266:9 268:5 274:7 278:15,20 281:15 291:17,21 296:11 300:12
---	--	---	---

priced 61:18 90:21 prices 98:6,12 196:23 197:2 205:1 226:1 237:17 240:12 258:15 268:6 275:7,12 287:21 287:23 288:14 289:11 296:8 pricing 97:16 115:22 primarily 89:7 primary 207:2 291:1 prince 135:14,21 printed 9:15 printer 182:15 printouts 9:10,13 182:14 prior 38:22 116:4 140:21 142:15 162:17 180:2,14 183:13,14 207:24 212:13 215:20 300:11 private 5:10 18:7 20:8 21:4 31:17 53:14 60:3 89:20 148:2 154:18 155:11 156:4,18 290:13 pro 118:20 probably 10:16 60:23 77:12 80:5 101:23 113:14 138:3 212:21 225:10 237:17,18 238:1 257:23 267:18 275:4,5 298:7 301:21	problem 7:8 24:2 38:17 99:21 161:6 161:8 168:9 169:7 188:7 224:2 227:1 227:6 266:18 269:18 270:3 302:3 303:10 310:3 315:5 problems 72:19 73:5 85:8,9 87:8 87:14 205:10,11 224:2 257:11 258:13 300:16 proceed 26:6 proceeding 73:23 81:8,23 82:20 83:8,15 85:13 88:8 proceedings 316:8 317:13 proceeds 44:18 process 73:17 74:12 75:13 76:7 160:1 192:2,11 224:17 230:8 234:4 251:12 254:7,9 processes 78:23,24 79:1 186:23 187:6 188:2 processing 209:16 produced 91:15 297:14 317:12 profession 167:24 302:5 professional 254:24 255:3 311:13 proffer 181:10 246:13	proffered 249:18 program 79:14 programs 79:10 304:3 project 211:20 projects 4:5 153:10,13 158:21 159:12,22 160:1 161:24 162:14,23 163:17 166:2 167:4 168:4,11 171:4,9,11,24 172:16 pronounced 211:11 proper 28:14 34:19 35:11 44:22 45:1 99:3 125:2 160:22 174:5 259:1 properly 95:10 211:11 273:13 288:12 properties 104:24 112:7 123:18 147:20 149:20 172:7,8 184:9 186:13,15 187:1,7 188:4 189:5,7 191:11 192:14,17 193:24 194:10,23 215:20 228:10 251:7 255:11,15 266:14 268:2,6,7 269:5,24 271:2,6 271:17 272:3,15 272:20 273:14,23 273:24 277:17 278:9 279:9 285:1 287:6,8 291:14 295:6 305:13,19	306:7 309:1 311:4 312:16,22 property 10:21,22 15:2 68:18,19 69:2,5 70:10,11,14 70:20,21 89:18 93:17 104:5,7,14 104:17 148:14 149:2 171:24 172:1,23 174:2,4 178:1 182:19 183:2,18 184:16 184:24 185:1,9,11 185:20 186:2,11 186:21,24 187:10 188:6,20,24 189:3 190:15,18 191:18 193:2 197:22 198:4,8 199:16 205:18 209:11 211:1 214:10 216:8,16 217:2,5 217:10,12 218:1 218:11,15,18,23 218:24 219:4,6,8 219:10 220:4,5,9 220:24 221:6,11 228:8 230:18 232:12,23 235:11 235:15,17 237:4,7 247:4 248:21 255:18,22 256:2 265:24 266:1,7 268:4,18,22 269:14 270:12 271:3,19,19 273:1 273:4,8 274:10,15 275:1,17 280:22 281:8,10 282:6,6,8 283:9,11,15 287:4 287:10,17 291:24
---	--	--	--

[property - quantifiable]

Page 38

296:2,7,11,14 299:2,6,21 300:1,2 300:4,11 301:6,18 302:1 303:7,15 304:8 305:2 307:9 307:18 310:7,15 313:18 314:11 315:9 property's 248:22 249:5,6 289:14 propertywide 286:15 proportion 21:18 27:17 28:11 29:16 31:17,19 propose 77:24 proposed 38:4 46:1 48:7 49:8,13 53:12 57:13 89:19 125:8 162:15 172:13 192:14,17 192:19,24 193:4 194:1,13,22 199:16 271:2 279:10 285:2 286:12 proposing 171:15 171:17 199:13 200:6 proposition 112:13 propter 236:3 protect 136:14 protected 170:4 proved 150:4 proven 153:10 provide 8:23 21:8 27:16 41:10 49:11 157:16 158:10 164:7 165:20 184:23 239:17	241:22 274:14 278:7 provided 3:16,19 9:13 25:16 90:18 92:2,10,19,23 98:7 139:3 140:20 151:16 156:7 168:3 204:21 205:16 208:9 262:11,14 317:7 provides 165:23 248:19 providing 27:23 28:7,10 270:9 proximate 143:11 proximity 284:21 287:24 288:4 prudent 136:14,17 138:5 306:2 public 128:20 129:4 136:16 147:15 148:11,15 152:19 155:2,4,23 156:22,24 157:2,4 170:8 173:1,11,14 173:19 196:5 202:22 230:21 231:13 238:22 239:3 242:19 285:21 317:11 318:17 publications 101:16,19 156:3 publicly 187:15 198:20 232:3 243:3,14 245:7 249:20 250:2 251:8 285:16,20 published 213:2 230:5 258:6 269:21 270:6	pull 63:3 pulled 199:4 pump 42:14 60:12 61:17 62:12,13 80:3,11,16,22 81:15,21 85:16 105:8 111:20 115:7 116:13 198:12 pumped 119:6 pumping 114:20 pumps 111:18 115:18 purchase 21:19 31:4 134:13 190:17 281:19 284:17 purchased 18:6 266:8 279:19 280:7 purchaser 288:7 purchases 132:21 174:5 purchasing 133:14 134:2 257:15 purely 136:2 purport 18:15 purported 33:14 33:19 37:7 42:23 43:17,21 purporting 65:15 264:2 purports 47:17 purpose 32:15 35:17 58:8 268:15 268:24 269:11 271:7 272:15,21 275:19 purposes 22:4 35:12 125:10 164:23 183:1	184:16 199:14 228:11 275:16 283:16 305:18 308:16 pursued 25:12 pursuing 229:13 put 22:7 23:4 63:7 63:15 77:5 92:8 98:18 99:9 108:16 108:16 121:18 182:11 196:4 287:21 291:17 putative 21:10 29:11 32:11 56:5 56:6,18,21 60:11 61:14 65:17 68:8 68:17,18 79:24 102:16 104:1 106:18 107:13 116:9 118:3 133:20 172:1,9,12 186:7 putting 38:21 58:5 127:12 187:11 198:11
q			
qualifications 213:16 qualified 185:4 214:4,10,12 215:1 215:4 216:11 244:10,11,19,23 244:24 247:3,6,18 247:22 260:5 quality 125:19 130:22 159:17 160:3 163:1 164:4 165:21 226:19 269:2,14 quantifiable 54:24			

quantify 14:2 164:10 165:7 167:22 168:1,23 quantitative 214:24 quantitatively 256:8 quantity 125:3 164:4 168:9 quarterly 69:3 question 8:20,22 12:15 15:24 25:24 35:9 50:12 51:2 59:20 64:12 68:5 68:13 69:1,8 72:2 73:8 81:11 94:23 107:4 113:15 114:7 135:23 136:4 138:7,21 140:15,16 141:2 143:22 144:4 145:18 146:18,21 149:24 152:24 157:7 162:5,21 165:2,5 166:7 177:24 179:12 225:21 243:5 247:15 256:15 282:16 285:18 288:9 295:21 299:3 302:2,15,17 questioned 116:2 questioning 248:10 questions 8:16 22:8,8,12 23:13 24:6,23 25:6,8,21 26:7 66:8 98:16 98:19,23 99:3,23 114:15 156:14 160:22 161:16	228:18,20 315:22 quick 315:11 quite 71:21 83:13 165:15,18 297:6 quote 39:13 271:12 272:12 273:7 quoting 57:24 <hr/> r <hr/> r 5:1 277:19,23 317:1 319:1,1 320:1,1 radon 21:5 30:15 31:1,11,18 32:2,7 raise 73:5 159:17 raised 63:12 87:14 161:7 raises 72:19 87:9 range 62:5,22 64:2 64:22 65:2 116:20 117:9 259:9 266:17 ranges 312:15 rate 48:12 55:10 55:13 85:10 105:19 112:8,17 112:19 113:17 174:5,8 190:23 229:21 rates 106:11 145:2 237:19 rational 16:1 93:13,19 94:13 97:16 reached 121:18 151:15 read 9:8 11:11 12:13 13:5 17:10 18:8 20:13 30:18 32:3 36:4 39:18 42:19 46:12 49:15	53:16 60:9 61:24 67:13,16 68:1 69:12 72:23 90:3 94:3 112:9 115:1 120:16 130:7 132:24 139:24 148:6 151:22 153:18 158:13 171:6 174:9,17 175:11 183:3 184:2 187:3 217:7 219:20 221:1 230:24 231:3 234:18 271:9 272:10 273:17 286:9 288:2,9,16 301:10 311:5,9 318:3 reading 219:14,19 readings 69:2 ready 71:22 real 12:16,19 109:16 137:13 189:18 196:7 198:16 199:21 217:5 218:14 222:8 226:2,6 231:19 237:19 269:14 273:7 282:5 285:14 292:16 293:13,23 reality 102:16 realize 204:1,6,7,9 realized 206:2 reallocates 83:1 really 87:13 149:3 163:12 228:11 234:23 242:20 245:24 278:14 302:3 315:1	realm 121:5 realtime 317:3 realtor 190:7 226:4,5 284:2 realtors 226:8 reask 25:21 reason 45:3 61:8 130:5 131:5,14 132:8 135:3 204:16 246:24 257:10,13,16 308:11 319:2 320:2 reasonable 27:21 33:23 55:21 64:8 82:9 86:17 93:24 118:15 127:20 134:21 135:4 137:19 163:8 164:2,6,12 165:9 165:20 166:12,24 167:5 168:21 185:4 186:4 200:19 224:18 231:23 237:3 240:16 284:14 314:7 reasonably 7:21 25:17 58:17 61:18 240:6 268:2 reasons 256:16 301:15 rebound 71:14 287:21 289:11 rebuttal 3:15,18 7:12,16 9:11 10:4 10:8,9,15,19,22 17:4 22:2 25:3,7 25:18 27:6,9,22 28:3,7 30:13 31:15 35:19 42:11
---	---	--	--

[rebuttal - relevant]

Page 40

43:8,12 49:5 53:8 58:1,3 63:8,10,16 66:10 71:17 72:15 81:7 89:12 93:3 93:10 98:20 99:2 99:18 102:4 107:8 111:23 120:8 129:21 139:10 151:11 157:12 158:3 160:12,16 160:20,21 161:1,9 161:18,20 173:21 177:21 181:2,14 182:18,21 183:15 186:21 193:1 216:16 230:17 301:22 recall 118:13 203:10 209:3 receive 19:7 163:15 received 92:1 159:21 212:5,9 recess 40:12 53:3 72:10 138:16 201:14 262:4 315:17 recession 258:14 recitation 117:5 recognize 108:23 recognizing 305:24 recommendations 124:1,12 recommended 33:4 recommends 33:7 reconstruct 92:4 record 5:7,16 6:12 7:6 8:5,12,17 22:7 40:5,11,14 52:24	53:2,5 58:6 67:16 72:7,9,12 92:8 98:15,18 99:5,10 99:23 116:1 138:15,18 147:11 181:11 201:13,16 262:3,6 315:16,19 316:5 317:12,13 318:6 recorded 5:18 20:5 317:6 recording 5:14 records 241:18 recover 136:13 198:5 229:14 260:19 288:14 289:2 recoverable 135:8 136:2 137:4 recovers 289:4 recovery 260:17 261:6,13,21 recreate 91:20 redfin 232:1 239:16 241:8,22 243:2 249:7,23 250:2,15 251:9 reduce 93:21 95:13 96:5 97:8 reduced 96:19 reduction 42:17 97:11 177:19 196:19 205:3 259:15 reexamine 7:16 160:17 161:3 refer 10:7,13 110:13 227:17 reference 107:6 231:17 301:4 302:8	referred 10:1 22:15 208:8 238:22 249:19 250:1 270:10 284:20 referring 10:21 15:10 30:15 73:1 95:7 111:9 270:15 refers 133:2 refinance 206:5 refine 177:18 285:8,10 refinery 208:19,24 209:6 reflect 33:1 50:23 66:20 98:7 reflected 55:7 296:7,11 reflecting 249:11 reflective 82:4 205:15 reflects 125:15 179:5 regard 34:5 44:16 159:8 162:9 176:23 194:22 197:1 214:1 217:18 247:18 263:11 310:14 regarding 17:1 191:12 212:6 216:24 267:16 regardless 234:4 309:2 regime 303:13 regional 211:1 registered 317:2 regression 273:12 273:20,21,23 274:2,5,13,23 275:6,20 276:15	277:4,20 278:6,16 278:17 279:8 regressions 277:11 regular 93:6 regulated 70:3 regulations 153:4 190:2 regulatory 303:12 303:22 304:2,22 305:1,14 306:22 307:11,24 309:4 310:9 rehabilitate 153:7 rehashing 161:9 reign 25:21 reinterpretation 39:12,14 reject 47:14 rejecting 59:8 rejects 58:9 related 6:7 25:17 70:16 164:13 165:10 236:9 317:15 relates 40:22 106:24 relating 181:8 relationship 274:6 relationships 277:24 relative 20:21 64:23 97:4 223:18 237:21 266:9 317:17 relatively 196:23 releases 152:20 relevance 181:11 225:1 relevant 22:4 23:17 26:2 64:13 65:1,7 66:9
---	---	--	---

[relevant - report]

Page 41

136:19 137:15,19 142:2,16 143:2,16 144:8,9,17,20 145:7,21 146:17 146:20,23 147:1 150:8,21 154:4 155:24 162:8 183:20 235:7 259:21 289:15,18 290:2,5,8 299:4 300:20 reliability 160:2 163:1 227:2 230:5 237:1 238:12 243:23 263:12 277:3 reliable 51:12 164:4 165:23 166:18 176:23 177:5,9 220:6 223:9 224:7 226:16 233:18 238:10,20 240:6 241:21 243:13,18 245:9 246:11,17 246:22 254:14,21 255:1 265:9 reliably 217:1 reliance 91:15 92:11,18,22,24 reliant 53:14 relied 89:20 221:24 222:5 240:6,10 relief 22:11 130:5 131:5,15 132:2,8 132:14 rely 13:15 138:3 198:18 223:7,11 224:9,12 240:17 240:22 245:7	246:4,10 relying 18:4 227:21 remain 120:12 126:15,24 127:9 138:24 145:23 remaining 126:18 remains 125:18 remedial 305:12 remediating 127:5 remediation 39:7 39:19 42:1 49:20 49:21 50:2,9 124:3,15 125:5 remedied 45:20 121:7 197:23 198:6 remedies 38:1 remedy 38:6,8,15 38:17 50:7 71:10 127:1,4 130:16 135:1,2 137:11 198:9 287:21 289:10,13 remedying 165:15 remember 69:24 116:6 121:15 210:9 280:4 remove 165:16,17 removed 38:2 289:12 render 19:23 45:22 278:3 rent 104:18 205:22 rental 206:13 renting 104:8 repaint 281:2,3 repairs 164:10 165:7	repeat 149:12 165:4 180:17 198:19,20 200:21 215:18 267:12 repeated 99:2 240:23 repetitive 22:12 22:22 repetitiveness 163:21 rephrase 262:12 replace 80:10,15 81:14 96:1 103:12 103:19 108:2 153:7 281:6 replaced 169:1 replacement 15:20 42:14,15,15 80:3 80:22 81:21 82:19 83:12,13 151:15 154:17 157:13 169:11 170:14 173:9 replacing 62:11 85:4 96:21 156:6 replow 99:17 replowing 81:2 report 3:16,24 9:20 10:1,10,13,18 10:22 13:2 16:14 17:12,24 20:1 21:8,22 22:2,14,15 23:19 25:18 27:6 27:9,16,23,24 28:3 28:5,7,8,15 30:13 31:15,21 32:19 35:20 36:9 37:11 37:15,23 39:14,16 39:23 40:2,16 41:13 42:7,8 43:8 43:9,12 44:11	45:2,14,16 46:9,24 47:3,13 48:5,24 51:21 54:14 58:1 58:3 63:8,13,16 64:6 65:4,10 81:7 85:9 90:5 91:4,10 91:14 92:10,17 93:3 98:21 99:1,2 102:3 106:23 107:8 112:16,23 113:11,15 114:3 114:23 117:12,15 121:16,23 122:1 125:15,16 128:9 133:2 140:11 141:13 147:10 149:10 154:16 155:7,14 157:13 157:20 158:2 160:13,18,20 161:1,9,18 162:15 165:14 167:2 168:19 169:16 170:19,22 171:1 177:21 178:6,11 178:13,22 179:1 180:11,15,24 181:3,9 183:6,13 183:15,15 208:14 209:2,4,18,19 210:6,7,16,18 211:17,18,22,23 213:1,4 220:17 222:4,7,22,23 223:1,5,6,8,12 224:5 229:1,6 232:1 236:24 237:14 239:20 250:1 267:19 268:9 270:5 271:11 273:6
---	---	--	--

[report - right]

Page 42

284:11 285:23 290:15 296:12 297:12 298:2,11 300:23 310:24 311:19 315:22 reported 220:20 221:4,15,18,23 223:22 224:13 225:5,24 226:15 227:20,22 228:2 230:1,11,14 239:10,12 248:21 248:23 250:24 251:6 252:13,24 253:22 312:19 reporter 1:20 6:5 6:24 8:17 9:3 152:7 248:14 317:3,3,24 reporter's 8:21 reporting 239:22 253:2 reports 3:19 7:14 7:22 11:1,6 24:12 24:13,17,18,19 25:4,7,10 79:5 81:3 83:20 106:24 121:13 124:24 125:17 130:10 139:18 179:3 181:4,14 196:10 196:14 224:10 234:18 249:16 250:5 represent 9:14 113:12 212:3 248:17 258:16 312:7 representations 253:9	representative 75:4 represented 118:10 representing 118:23 represents 14:24 59:23 84:7 119:2 175:15 request 92:13 requested 21:3 92:22 317:24 require 125:23 130:4,18 131:3 155:18 305:11 306:7,20 required 115:9 152:18 171:11 287:11 289:7 301:6 310:14 requirement 70:2 requires 200:22 287:13 research 219:22 252:4 researched 196:7 researchers 221:12 residences 147:22 148:2 168:16 resident 23:2 31:5 115:5 118:1 140:18 142:3,16 residential 55:12 93:16 104:5,7,13 104:17,24 164:23 194:4,4 220:24 221:6 305:18 311:4 312:22 residents 17:15,20 18:3,5,11,18,20	30:16 31:10,12 32:5,11 40:17 41:1 120:11 126:24 139:15,19 139:21 140:4 143:2 147:22 148:1,1,4 164:7 217:1 218:22 230:22 294:23 residuals 278:22 279:1 resource 153:21 153:22 154:18 155:10 173:2 306:3 resources 152:16 152:20 153:5,8 154:8 155:4,5 168:2 respect 24:10 64:2 64:13 125:9 151:15 184:7 188:18 247:9 306:6 respectful 225:14 respond 81:4 118:15 responding 34:4 181:4 response 8:23 136:20 149:24 306:23 responsible 221:20 rest 19:21 41:13 170:5 restoration 4:5 152:18 153:10,12 restore 153:6 155:3 158:24	restoring 156:21 restriction 187:11 restrictions 69:16 resubmit 30:4 result 41:22 49:12 52:1 103:20 173:15 186:2 210:24 214:4 287:23 resulted 49:19 results 69:18,24 216:1 292:13 retained 209:9 return 126:6 reveal 76:8 revealed 128:17 146:9,11 revealing 310:20 revenues 140:10 review 260:7 313:13 317:24 reviewed 33:24 101:16,18 156:3 241:9 267:15 269:20 revisit 315:12 revisiting 24:5 rhode 210:3 rid 230:8 right 27:12 30:3 49:3 80:17 81:16 91:2 94:4 96:9 99:6 114:2 116:5 122:15 123:11,14 123:22 126:23 159:5 176:19 183:16 196:3 214:22 215:13 218:12 219:3 222:15,17 225:19 231:1 236:15
---	--	---	--

[right - see]

Page 43

240:24 245:19 246:23 265:2 271:15 295:16,17 311:9 312:10 rigorous 33:21 rising 287:23 risk 273:11 310:20 risks 38:18 294:16 294:17 river 210:22 rmr 1:20 317:22 roads 195:21 robert 1:13 3:5,11 3:14,23 5:18 7:1 8:7 211:19 316:7 317:4 318:10 319:24 320:24 rodeo 8:9,9 room 6:11 rory 2:13 6:16 rory.gledhill 2:19 rounds 69:3,17,24 row 252:8 rpr 1:20 317:22 ruggieri 1:20 6:5 317:2,22 rule 131:15 161:15 rules 8:11 148:23 192:7 265:21 266:2 288:24 309:18 run 80:13 277:11 running 130:20 211:3	sake 8:21 sale 192:9 198:19 198:20 200:21 206:3,24 226:2 238:3 258:9 283:3 sales 190:15 192:3 196:19 197:9,15 198:21 201:20,21 202:1,14 203:2,8 215:10,14,18,19 215:20,20 239:6 239:20 267:3,10 267:12,14,23 276:18 salvage 86:23 110:2,7,13 111:1,2 111:5,13 sample 30:5 255:2 255:5 samples 20:6,7,20 27:5 sampling 20:11 69:4,17 satisfactory 317:7 savings 40:22 41:5 41:12,21 42:1 50:21 51:6 52:1 52:16,20 77:5 89:22 93:15 135:13,20 140:8 140:10 141:21 saw 96:13 saying 16:15,23 38:10 39:5,20 44:5 56:15 57:8 58:13 59:5 60:13 69:21 73:15,19 74:8 77:11 96:10 97:1,15,19,20 109:14 121:1 127:8 128:2	130:15 131:8 143:23 148:12 180:10 206:18 225:17 235:9,11 235:14 236:9,16 243:7,17,19 244:1 244:5 245:18 246:9,24 261:7 289:8,10 306:16 307:15 314:3,4 says 7:3 13:2 16:14 17:7 18:1 20:3 28:21 30:15 31:22 35:24 37:11 38:8,14 42:12 45:18 48:6,9 49:8 53:10 54:23 58:11 60:3 67:10 68:5 72:18 81:14 83:10 89:15 90:15 111:24 114:13 120:9 126:15,23 129:23 132:18 139:12 151:14 152:14 153:3 158:7 171:3 174:1 178:22 179:2 182:22 199:19 216:23 220:18 226:6 242:7 245:23 253:17 270:24 277:20,20 286:4 287:20 294:15 303:7 304:19 307:22 310:12 311:1 scale 169:6 228:12 256:1,6 scaling 4:3 153:9 scarcity 153:15	scattered 71:21 schedule 112:3 scheme 19:19,20 19:21 78:10 86:18 schemes 86:3 school 190:22 204:23 schools 202:13,23 204:24 205:4,10 205:11 219:5,9 science 175:9 177:15,17 301:9 302:13,14 305:8,9 310:2 scientific 33:15,20 34:11 302:2 scientist 34:19 scope 15:15,19 24:7,10 237:14 238:2 screening 230:8 se 118:20 227:3,7 search 298:15 second 17:24 31:21,22 79:7 108:22 109:17 129:22 139:11,12 152:15 153:2 158:7 168:14 171:2 172:24 173:22 186:21 193:3 230:18 242:16 270:7 274:19 310:24 section 15:23 17:12 46:5,9 48:6 58:9 178:19,24 307:16 security 160:2 see 16:24 30:4 71:14 91:4 94:14
s			
s 2:5 3:9 5:1 319:1 320:1 safe 67:21 137:18 saint 1:8 5:21 6:14 6:17 38:1			

[see - sir]

Page 44

99:8 121:23 124:21 144:1 147:2 163:3 164:1 175:6 195:16,18 197:9,11 199:3 239:6 240:12,22 241:20 274:10 278:22 295:12 296:10 306:13 seeing 68:9 70:15 141:16,17,24 282:6 seek 145:24 seeking 22:10 167:24 182:24 183:17 184:6 185:10,18 275:15 seen 249:13 294:12 314:9 selected 55:12 148:1 166:24 self 220:20 221:4 221:15,18,23 222:4,7 223:5,6,8 223:12,22 224:5 224:10,13 225:5 225:24 226:3,15 227:20,22 228:2 230:1,11,14 239:10,12 248:21 248:23 250:24 251:6 312:19 sell 31:1 111:8 207:9 288:19 seller 291:22 310:4 seller's 310:7 selling 257:2,15 260:9 semantics 50:14	send 23:1,2,3 252:5 298:16 sense 164:17 247:6 257:9 293:12 sensitive 5:10 sent 220:2 sentence 20:3 30:15 31:22 53:9 57:24 72:18 74:17 89:14 126:14,23 129:22 132:16 139:11 151:12 152:15 153:2 158:7 171:2 173:22 182:21 184:2,11 186:21 221:3 230:19 310:24 sentences 39:17 separate 73:23 114:5 181:17 265:18 277:10,11 300:14 separately 300:15 september 1:14 5:8 317:5 series 227:8 serve 275:19 served 24:11 147:23 180:23 181:2 service 156:6 204:19 206:11 294:21 services 151:16 157:17 158:11,24 164:20 204:10,11 205:16 206:17,20 session 160:10 set 19:21 24:4 53:11 56:9,10,14	56:15 57:12,18 58:15 60:6,16 73:11 79:13 131:9 161:17 192:6 242:5 265:21 266:1,2 273:23 274:7 292:22 sets 13:12 256:1,6 256:7 settled 209:5 settlement 78:24 79:13 209:21 seven 13:3 16:15 16:17,21 178:23 179:1,5,14,17 180:8 181:18 195:24 shallow 77:13 share 73:24 74:13 240:2 273:14 279:10,14,15 sheet 261:1 318:5 shifting 139:15 short 36:1 151:13 shortly 197:18 show 100:24 175:4 197:1 286:22 showed 69:17 143:14 196:18,21 196:22 shown 114:16 309:23 313:17 shows 116:20 117:9,15,18 146:11 242:13 312:14 sic 46:15 48:16 211:7 side's 34:13 sides 108:10	signature 317:21 significant 24:22 56:22 77:3 198:7 significantly 67:3 67:6 261:11 silly 136:4 similar 55:1,4 108:11 115:19 187:18 188:9 189:24 190:21,21 190:22,22,23,24 191:13 237:21 239:16 268:3 273:15 279:10,14 291:8 294:5 296:6 311:3,24 312:1,3 312:22 313:7,12 similarities 58:16 61:9 279:16,17 similarity 184:9 187:20 191:4,5 similarly 1:5 188:8 239:7 273:15 279:11 simple 16:9 91:21 96:11 109:8 179:12 234:13,16 235:1 304:7 simplify 95:17 simplistic 278:14 simply 33:10 47:13 84:7 117:4 131:15 171:3 188:10 206:21 208:3 304:8 single 39:17 82:16 113:14 114:7 190:12 194:4 299:18 sir 146:8
---	---	--	--

[sit - stated]

Page 45

sit 122:15 127:19 267:1 site 50:8 286:6,8 290:1 293:10 294:9 296:6 299:12 sites 239:17 292:7 293:7,8,9 sitting 69:23 91:2 116:6 139:2 situated 1:5 239:7 273:16 279:11 situation 59:11 102:17 158:19 163:4 200:11 205:6 229:13 233:23 234:2 239:14 260:6 306:4 307:8 situational 279:16 279:16 situations 223:20 six 312:16 size 148:24 190:23 194:24 195:3,19 195:19 279:21,24 280:11,15 289:15 sizes 195:2 skeptical 285:11 slander 231:9,10 slated 138:24 slightly 19:15,16 27:19 309:6 small 31:17,19 255:2,6 smaller 19:15 53:24 75:7 society 269:1 softener 23:8 27:1 28:23 29:5,8 40:18 42:15,16	44:1 51:23 52:7 61:4 76:18 105:8 119:20 softeners 61:1 65:12,16,21 66:17 66:20 75:24 76:10 soils 165:17 sold 204:6 sole 237:6 solely 304:8,17 solution 121:2 123:15 129:3,3 somebody 77:14 80:12 241:16 someone's 203:16 222:4 223:22 231:8 somewhat 289:9 314:6 soon 307:2 sophisticated 275:10 sorry 33:3 46:18 68:14 104:15 118:9,24 151:11 152:23 174:12 216:19 235:16 248:15 253:6 301:1 sort 228:6 sorts 166:5 201:1 231:20 sought 140:5,20 239:9 sound 72:4 272:8 301:9 302:12,14 311:15 source 168:14 173:17 183:5 189:21 286:17 300:6	sourced 20:8 sources 112:15 153:16 166:1 198:18 199:4,5 232:1,4 243:11 250:3 254:20 300:7 southern 193:18 space 195:10 311:22 speak 65:4 109:5 283:23 284:2,4,7 304:13,15,16 speaking 192:4 specific 29:20,22 44:16 96:6 102:19 216:2 257:19 270:14 278:8 300:2 306:7 specifically 53:10 90:5 307:9 spend 95:19 127:13,13 172:15 200:18 spending 29:6 spends 93:12 sperry 2:3 6:21 split 66:3 spoke 78:2 sport 291:6 sportfishing 291:5 291:10 spot 257:11 spots 125:17 spreadsheet 100:24 square 191:6 289:17 squared 277:19,23 st 209:8 296:20	staff 232:6 stage 75:5 77:20 274:19 stand 27:20 37:22 39:23 40:1 standard 49:11 60:6,15 65:6 131:22,24 266:20 301:17 302:20 304:13,14,16 308:12,15,20 standards 166:8 301:22 302:4 standpoint 230:15 279:6 313:10 stands 160:11 start 11:6 72:1 153:1 156:15 162:21,22 started 7:7 80:17 81:16 178:16 state 6:11 8:6 21:5 22:24 27:6,13 28:20 33:7 99:4 130:3 131:9 152:16 154:7,11 155:18 220:3 268:9 270:5 284:14 285:23 296:21 298:9 299:13 303:8,11 305:11 306:20 308:1 state's 303:12 stated 7:22 39:3 64:7 98:20 130:9 140:7 157:12 160:12,19,24 214:9 268:12 276:5
--	---	---	--

[statement - switch]

Page 46

statement 3:11,13 3:15,18 13:4 27:4 37:19,22 39:19 74:7 121:12 150:1 154:24 174:22 183:6 221:9 256:11 304:24 307:3 313:15,20 313:21,24 statements 9:10 81:7 98:19 318:7 states 1:1 5:22 36:20 37:7 99:15 273:9 303:22 304:2 stating 220:22 237:2 station 294:21 statistical 13:13 230:15 313:9 statute 217:9 218:13 219:7 stay 145:8 stayed 300:18 stemming 296:15 stenographically 317:6 step 17:23 19:24 20:10 226:24 steps 227:8 stop 49:6 storing 153:14 stow 219:21 229:20 straightly 37:5 stranded 107:20 109:10,18,20 110:3,8,24 111:3 straw 34:12 street 1:16 2:5 6:2	streets 141:9,10 strike 63:10,11 161:16 stringent 304:4 strong 242:4 structure 79:17 structured 105:14 studied 283:5 294:5 studies 290:23 293:7 294:11 295:9 296:5 311:18 314:17 study 20:16 27:6 287:20 291:6 292:14,14 293:2 293:10,15 294:9 stuff 125:3 231:20 305:10 stumbling 311:7 style 195:20 subclasses 65:3 subject 48:17,21 83:20 84:24 97:13 98:24 140:24 154:22 213:24 265:24 278:9,10 subjective 13:16 191:2,5,8,21,23 246:5 submarkets 277:12 submit 23:4 78:15 83:14 submitted 209:4 210:8 234:19 314:20 subpopulations 51:1 subscribe 318:6	subscribed 318:12 substance 302:22 303:14 304:21 substances 152:21 303:3 304:17 307:24 substantial 140:8 141:21 substantially 250:16,18 success 215:17 successful 125:2 sue 137:12 suffer 45:21 suffered 173:15 217:3 sufficient 215:10 274:24 sugarman 1:15,15 6:2,2 suggest 26:6 44:11 suggesting 94:7 suggestion 93:12 suggests 90:9 127:16 179:13 suitable 269:10 suite 191:18 suited 255:24 257:18 sullivan 1:4 5:20 sum 47:11 summary 95:1 248:19 249:18,21 312:12 sunding 296:13 297:8 298:8,10 314:16 sunding's 297:11 supplies 147:16 148:11	supply 46:4 148:15 149:15 210:15,23 support 101:16,19 101:22 213:12,13 213:15,16,18 243:15 287:23 supported 27:3 114:21 119:15 supporting 228:11 supports 154:16 163:16 303:21 suppose 100:11,15 supreme 211:2,3 sure 7:7,9 9:23 34:7 38:5 45:4 55:18 68:22 79:15 79:16 91:3 105:10 120:24 124:8 129:14 139:3 140:14 164:16 169:15 172:13 182:7 189:9 194:2 213:20 226:3 227:23 240:2 241:14 252:16 254:1 257:22 262:10 264:18 274:16 283:17 293:5 296:4 298:3 surface 165:21 surprise 286:13 survey 29:22 31:12 228:19 229:10 swapped 67:2 swear 6:24 switch 14:4 40:20 41:8 50:18 52:2 76:11 111:15 143:9,12 164:20
--	---	---	---

[switched - text]

Page 47

switched 175:17 switching 120:1 sworn 7:2 317:10 318:12 system 15:8 29:7 47:10 53:15 67:11 84:3 112:2,8 120:14,20,22 121:14 122:5 127:7,12 128:5,13 130:14 131:2 132:14 140:13 142:2,12 143:4,11 143:16 144:2,21 145:6 146:15 147:17 149:5,8,18 150:3,3,6 157:15 158:9,16 163:10 163:14 164:5 165:22 169:20,23 170:9,23 204:23 systems 36:18 55:2 130:2 139:14 139:16,23 140:4 141:15,18 148:17 163:2 168:10 198:12	71:24 84:16 88:13 89:11 109:10 111:7,22 114:12 139:9 158:2 173:20,21 174:11 178:4 192:22 201:8 216:15 220:16 226:5,8,24 237:22 248:10 250:8 252:7 260:13 261:24 270:21 274:20 297:19 306:21 310:23 315:11 taken 5:19 109:11 137:1 157:23 takes 295:22 talk 85:8 109:9 122:7 168:20 talked 43:23 58:21 107:1 140:6 146:4 178:5 182:4 186:9 212:4 214:18 227:13 talking 17:13,15 43:6,11 56:16 80:6 82:14 87:22 88:21 90:7 102:10 115:13 178:12,17 182:12 217:24 219:13 221:14 304:6 306:14 talks 79:5 101:24 184:8 274:19 276:4 tank 42:14 60:22 82:19,20,22,23 83:11,13 85:4 105:7 142:10 tanks 111:18	tautological 56:2 tax 174:7 229:21 taxing 283:16 technically 131:12 technique 265:15 265:17,19,20 273:9,12 275:24 techniques 16:12 241:8 268:12 tell 9:6 12:6,19 28:6 45:12 47:16 91:7,17,24 152:10 183:5,7,11 196:16 203:7,14 208:11 278:8 296:16 313:10 telling 206:15 212:8 242:15,15 243:12 253:3 tells 242:9 278:18 temporary 288:20 ten 100:12,17 195:12 196:6 289:21 tend 13:11,15 tenure 83:2,3 term 43:20 49:12 50:9 51:17 52:10 52:11 70:14 77:9 204:6 265:18 267:6,8 274:4 311:24 terminology 37:8 50:15 terms 7:10 22:11 25:14 26:9 29:2 59:4 84:22 188:20 293:12 terribly 276:12 300:20	test 17:16 18:5,6 18:11,18 19:7,8 21:14,19,20 22:17 22:19 23:9 26:15 26:20,23 27:1,11 27:15 29:9,12,19 29:21 30:4,7,17,21 30:24 31:8,11,13 32:12,17,21,24 33:11 tested 20:6 27:5 31:18,24 241:13 testified 14:13 16:5 24:7 74:18 76:3 99:12 118:14 215:8 244:9 testify 136:1 203:12 216:11 217:1,6,10,14,18 218:22 219:9 220:4 228:7 232:23 233:6,7,13 233:14,19 234:3 245:23 testifying 218:7 236:1 testimony 23:18 69:14 162:9 178:20 232:18 296:12 testing 17:13 18:2 20:11,18,23 21:9 22:3 28:21,24 33:8 84:9 tests 17:19,20 21:2 21:3 23:19,22 26:14 28:12 29:24 30:9,15 32:6 33:2 33:4,5 86:6 text 116:24 161:17 179:7 180:10,19
t			
t 3:9 317:1,1 319:1 319:1 320:1,1 tab 242:7 table 26:18 48:3 tables 91:12 tabulation 92:11 take 5:15 9:12 17:4,23 19:24 24:23 26:10,14 27:1 35:18 39:16 40:9 42:7,7,10 45:14 48:2 49:4 53:7 68:3 71:20			

textbook 101:23	87:18 89:13 91:20	292:4,17 294:3,13	122:4,13 138:14
textbooks 101:21	94:22 95:22 96:23	295:18,20 300:20	138:18 163:4
267:16	97:23 98:22	303:6 304:12,23	180:23 183:23
thank 7:23 95:8	104:12 107:3	308:8 309:19,21	196:23,24,24
181:12 222:15	113:22 117:12	310:2,9 312:24	199:1 200:13,16
231:5 262:1	122:10 123:19	314:3,5,22 315:13	200:22 201:12,16
thanks 145:13	124:20 125:14,14	thinking 86:4	202:20,23 205:1
theories 34:5	130:19 132:12	163:9 259:7	206:4 215:11
theory 287:22	135:3,22 140:23	thinks 45:1 301:17	216:14 222:8
thereof 217:6	143:1,6 144:19	third 7:10 20:3	236:8 237:17
thereto 317:18	145:6 150:4 151:6	30:14 60:2 217:18	241:21 249:17
thing 34:19 108:22	154:3 163:11	thomas 3:20 10:19	251:21,24 252:6
176:5 195:23	167:6 169:4	thoroughly 160:7	253:12 262:2,6
199:23 202:17	174:21 175:23	166:14 168:6	276:21 279:19
210:7 265:23	177:20,22 179:20	172:18	288:13 293:1,2,15
293:22	181:13 184:13	thought 141:23	293:15,23 299:8
things 12:24 34:10	185:3 186:1	228:24 259:3	308:4 311:22
48:15 49:1 57:8	187:19 188:5,5	271:14 289:22	315:15,19,23
57:19 82:8 95:20	199:20,22 200:8,9	314:23	316:4
98:5,12 159:1,4,12	200:13 203:11	three 2:14 196:1	times 153:15
162:24 166:5	214:9,16 215:5,16	204:14	207:5
168:1,18 183:19	216:18 218:21	threshold 71:13	timing 276:18
195:16 198:22	219:11 220:7	71:15 302:23	288:11 293:12
201:1,3,5 222:8	221:11,22 222:7	303:6 304:9	timings 82:8
223:3 226:21	222:18 224:4	305:21 307:11	title 270:9
236:22 238:16	226:9,20 228:5,10	309:5	today 8:14 11:7,9
266:6 275:22	229:18,18 231:24	thresholds 303:4	55:19,22,24 56:1
think 13:8 14:11	232:4,11,15	304:18 305:14	69:23 71:7,9 92:4
16:5 21:6 22:14	233:22 235:4,4	306:22	116:6 127:19
24:21,24 25:23	237:8 238:1	threw 182:16	139:2 253:2
27:15 29:15,15,17	239:19 240:21,22	thursday 1:14	311:10
33:22 34:9,23	242:1 243:8	time 11:11 29:6	today's 316:6
37:4 39:11,16,22	244:15 246:2	31:3 40:10,14	told 66:11 183:8
40:1 42:6,8 47:19	247:14,17 257:23	53:1,5 62:17 63:9	183:11,21,22
48:3,22 49:17	262:8 265:6	67:22 72:8,12	207:4 246:2
51:12 56:2 58:1	266:21 270:2	78:19 80:7 81:22	tone 42:8
58:13 61:8 63:14	273:5 274:11,12	82:17 84:14 88:20	tool 242:20 243:2
69:9 70:24 71:18	279:14,15,18	88:23 100:24	tools 241:23
77:16 78:2,3,21	282:5 284:24	101:2 106:12	256:12
79:4 80:12 82:4	285:4 287:5,16	111:15 113:1	top 120:9 147:13
84:4,8 85:3,14,24	289:21 291:19,20	115:18 121:20,24	173:23 252:8

[top - understand]

Page 49

295:17 topic 107:1 120:6 127:7 169:17 topography 290:5 total 59:23 65:7 66:5 73:22,24 74:10,14,19 75:3 79:6 83:7 100:12 262:22 274:22 totality 36:22 42:7 42:8 112:14 125:15 totally 118:15 touched 137:9 tour 281:18 touring 282:8 town 51:23 52:5 112:5 119:19 159:22 162:2,16 163:16 166:4 171:3,8,12,16,23 172:16 195:6,21 299:11 towns 171:17 toxic 302:22 303:5 toxicity 303:18 toxicology 305:9 306:16 trade 189:19 tradition 257:24 traditional 289:13 293:17 traditionally 258:3 training 247:7 transacted 237:16 transaction 241:20 258:2 266:11 transactions 257:5	transcript 3:22 11:12 12:12 68:4 317:12,24 318:3,6 transfer 86:12 290:20,22 291:4 291:11 292:2,6,11 295:2,3,6 296:1 transition 46:4 77:6 262:15 263:6 transitioning 54:5 transport 234:19 transposed 66:12 treat 54:14 84:22 100:2,3,6,18 108:19 198:12 treated 49:10 80:18 81:17 85:5 107:9,11 trend 139:15,17 201:21 trends 196:8,12 197:13 198:17 trevor 2:22 3:21 6:18 10:20 trial 289:4 tribes 152:17 tried 204:8 215:23 242:2 246:19 247:23 254:18 trier 33:24 220:8 220:11,14 233:17 243:24 trip 193:3 trouble 63:5 true 11:2 21:1 32:18 71:2 110:21 135:1 197:21 217:21 264:23 274:16,17 283:18 283:19 289:10 317:12	trump's 224:3 trust 78:15,16 88:1,11 132:21 133:3 trustee 154:2,6,8,9 trustees 152:15 153:5,22 154:18 155:2,10 try 30:11 32:10 34:2,9 202:5 212:20 255:10 290:17 trying 13:18 47:22 71:9 81:9 82:2 90:8 99:10 102:11 109:13 122:18 151:3,4,4 165:20 168:7 202:18 225:17 229:14 268:1 288:19 291:23 293:3,16 294:10 309:20 tube 23:4 turn 5:11 12:11 17:3 21:16 22:13 31:14,20 45:16 72:14 120:7 151:10 169:10 182:17 turned 298:3 turning 122:10 turns 66:15,18 124:21,23 twice 310:8 two 9:11 12:23 13:2 20:7 46:23 47:2 101:13 108:19 112:15 117:5 130:2 142:13,13 169:14 172:17,20 173:4,6	173:7 174:17 175:19 177:7 179:21 206:1 207:2 226:21 227:18 267:5 275:21,22 277:8 type 271:3 294:12 typed 211:10 types 193:24 198:22 296:2 typical 119:16,16 291:4 299:5 typically 30:23 31:2 86:14 127:4 129:13 157:8 214:21 242:3 255:16 256:5 257:2 268:24 277:5 295:8 296:7 typo 181:19 270:18
			u
			ultimate 263:13 ultimately 18:23 77:4 121:17 199:6 286:15 287:15 ummm 90:23 uncertainty 55:8 121:16 122:2 307:5 309:12 uncontaminated 295:5 undepreciated 83:3 86:2 109:4 underestimate 277:17 underestimated 278:11 underlying 114:22 understand 23:20 24:13 43:2 95:7

99:7,14,18 140:14 149:23 160:16 167:18 184:1,15 185:9 192:6 199:24 209:4 235:24 245:4,24 249:10 260:22 261:5 263:9 267:7 268:1 269:13 271:11 276:8 301:15 understanding 26:2 55:20 132:9 175:21 184:18,22 226:9,11,13 228:12 232:16,22 233:5 237:6 238:17 297:16 understood 126:2 151:6 undertake 305:12 underwater 257:12 undocumented 113:18 unfairly 80:18 81:17 unfinished 290:8 unfortunate 99:9 unfortunately 182:14 272:6 uniform 311:21 313:17 314:6 uniformly 271:7 272:16,21 unimpaired 248:21 250:24 251:6 258:22 unique 133:6,16 306:5	unit 5:17 42:15 united 1:1 5:22 unnecessary 40:8 163:23 unpack 49:24 85:2 unrealistic 117:2 unreasonable 93:22 188:11 199:20,23 200:8 264:9 314:5 unrelated 164:11 165:8 224:1 298:22 unreliable 45:23 unsupportable 301:7,13 302:10 unsworth 1:13 3:5 3:12,14,23 5:18 7:1 8:3,7 12:7 13:6 24:16,21 25:3 26:16 46:15 48:16 49:6 63:6 72:14 80:15 81:14 83:11 138:20 152:7 162:10 180:23 201:18 231:6 248:13 262:8 315:21 316:7 317:4 318:10 319:24 320:24 unsworth's 26:3 45:21 46:6,10 81:3,6 92:23 99:1 160:12 unusable 153:17 unusual 71:14 278:24 unwarranted 169:12	update 255:9 updated 115:16,21 upgrading 172:5 ups 293:14 urge 225:13 usage 48:10,11 118:3 use 7:15 13:12,23 13:24 23:8 26:20 34:11 43:15,20 44:3,7,12,18 46:10 47:18,20 50:14 52:10 59:5 60:5 73:21 74:10 77:12 78:3,4,7 79:6,7 80:5 88:11,19 89:1 98:4 101:6 101:17 105:6,12 116:17 118:1 120:13 125:23 147:15 148:10 149:14 154:19 155:11 156:4,5,19 156:21 164:8,22 169:11 171:17 174:6 206:4 210:20 220:20 221:4 223:1 227:16,19 228:1 229:24 231:14 238:5 239:3 240:5 242:1 256:6,14 257:16 258:5 260:13,18 267:8 267:16 269:6,22 270:11 274:4,20 276:8 278:13 283:13,20 290:22 301:8,14 usefulness 277:3	uses 43:15 44:6 46:15 117:20,22 221:15 254:6 267:5,14 274:5 usually 255:14,20 296:8 utility 112:5 utilized 25:7,9 utilizes 46:7
			v
			v 208:20 valid 109:13 validity 13:13 valuable 189:4,6,7 valuation 17:19 241:7 245:9 249:8 252:9 270:12 273:8 valuations 154:17 value 12:18,21 14:6,15,19 15:2,14 16:17,21 83:5,24 84:16 85:7 86:23 87:1 93:5 97:18 101:3,7,8,11 102:24 103:9 109:9,22 110:2,7 110:14 111:1,2,3,6 111:13 114:18 119:12,13 174:6 175:8,14,23 176:8 176:9 177:4,19 178:2 179:4,6,9 181:1,3,8,23,24 182:4,5 183:2 185:1,19 186:2,7 188:3,7,23 189:2 189:14,15 190:3 190:16 197:13 198:8 199:15 203:16,20,24

[value - want]

Page 51

204:2 205:9,13,15 205:18,19 206:2 206:16,19,20 207:3,12,14,21 208:10 209:23 210:1,12 214:2,6 216:8,12 217:2,6 217:11,14,15,22 218:2,8,11,17,22 218:24 219:10 220:10,23 221:11 222:4,16 223:12 224:13 225:5 226:6,14 228:8,16 228:23 229:1,4,6 229:15 231:15 232:12,12,20 233:6,7,13,15 234:5 235:12,15 235:17 237:10 238:10,17,21 239:2,5,10,12,18 241:24 242:8 243:6,21 244:2,7 244:12,16,19,21 244:22 245:4,5,11 246:12 247:4,19 247:23 248:22,23 249:5,6 250:11,15 252:19 253:1,5 254:15,19 255:15 257:18 258:22 259:9,15 260:16 260:20 261:9,10 262:16,23 263:4 263:15,18,24 264:3,15 265:4 267:4 269:4 271:8 272:16,22 274:14 275:1,17 276:9 277:22 282:18	283:16 289:15 291:5,9,9,13,16,20 291:24 296:14 300:1,5 306:9 312:14,15 314:11 values 42:21,22,23 43:7,8,9 73:21 74:10 75:3,6,8 78:5,8 89:18 91:4 101:24 117:5 119:15 172:23 186:24 197:22 198:5 199:11 211:1 220:5,6,21 221:5,16,18,23 222:7 224:5 225:24 226:15 227:20,22 228:2 230:1,11,14 233:1 237:4,7 241:19,19 246:3 251:9 252:3 252:12 253:11 255:9,11,18,22 256:2 268:18,22 269:15,23 273:1 292:21 303:7 valuing 13:1,9 178:21 221:5 variability 306:1 306:24 309:13 313:8 variable 106:7,11 196:23 203:1 271:5 277:9 283:8 312:6 variables 89:2 274:9 277:6 278:19 283:12 variance 251:5 278:2,5	variation 49:9,14 49:17,19 50:15,17 51:3,7,11,17 52:7 52:10,14,18,21 62:6,15,18,22 64:2 64:12,23 65:2 70:14 117:15 varied 43:22,23 293:14 312:20 varies 283:21 variety 78:20 88:3 195:16 221:13 various 19:22 vary 56:10 74:20 88:23 116:12,15 141:20 287:3 303:11 313:3 varying 106:9,12 115:10 vast 38:3 venue 184:13 venues 116:7 verbal 8:15 verbatim 162:5 verify 113:19 veritext 6:4,5 vermont 1:2 2:6 5:23 20:5,21 23:1 23:3 27:5,13 28:20 31:18 32:5 115:21 130:3 154:7,12 193:16 193:18 217:4 218:13 220:3 283:13 305:11 306:20 310:9,16 310:17,19 version 292:10 versus 5:20 15:8 80:11 105:24 178:18 293:20	295:5 297:4 298:10 vested 229:6 video 5:14,18 videographer 2:24 5:6 6:4,23 40:10 40:13 53:1,4 72:8 72:11 138:14,17 201:12,15 262:2,5 315:15,18 316:4 videotaped 1:13 view 136:16 258:21 306:5 viewed 93:20 village 40:17 75:24 76:9 virtue 77:3 244:24 245:2 visit 193:4 281:18 282:1,4 visiting 282:7 visits 193:8 volume 24:20 55:13 267:9 276:18 vs 1:7 vw 78:14 w wait 8:21 68:9 124:21 156:13 286:1 walk 222:10,11 want 9:22 31:16 43:5 63:4 65:3 74:5 84:1 98:14 98:18 99:21,22 109:10 110:18 118:20 128:18 148:19,20 149:3,3 174:17 182:2 200:18 201:2
---	--	---	---

[want - word]

Page 52

202:16 208:2,7 215:14 238:5 257:4 264:5 273:1 281:1,6 296:4 297:19,24 299:21 wanted 7:6,8 11:11 17:20 29:1 99:4 141:6 142:3 142:17 201:18 262:10 273:24 wants 46:19 47:5 47:6,8,12 108:20 133:4 256:17 warrant 308:20 waste 209:15 242:21 286:6 water 12:17 14:4 17:2 18:4 19:14 19:14 23:4,8 27:1 28:23 29:5,7 36:13,18 40:18,20 40:23 41:9,22 42:15,16 43:24 46:4 48:10 50:4 50:19,22 51:22 52:2,6,23 55:1,14 55:16,24 56:1 60:12,16,24 61:4 61:17 65:12,16,21 66:17,19 67:21 70:9,11 75:24 76:10,12,18,20 77:6 78:16,17 79:24 84:9 86:6 88:2 89:18 105:7 105:7 108:14,16 111:16 112:4 115:9 116:16 117:24 118:3 119:19 120:1 122:5 123:20	125:2,19 126:9,11 128:4,18 129:6,7 130:22 132:22 133:4,15 134:2,8 134:14,14 136:15 136:16 137:17 140:3,19,21 141:5 143:4,16,18,18 144:16 145:6,8,9 145:20,23 147:16 147:23 148:4,11 148:15 149:8,15 150:3,3,5 151:8 153:14,14,14,16 160:2,3 164:5,20 165:21,24 168:15 169:9 170:2,13 173:17 174:24 175:3,17 176:8 198:10 210:15,20 210:23 238:19 253:18 262:16 263:6 290:12 313:5 way 53:19 55:14 55:23 58:24 99:8 100:3 101:9,14 102:3,7 104:12 108:20 110:5,10 120:24 121:6 123:16 130:16 164:6 169:21 179:11 199:9 205:7,15,24 224:18 233:24 236:9 237:13 250:9 275:23 285:15 286:23 289:12 292:3 299:18 303:18	ways 19:22 78:20 88:3 101:13 163:9 166:16 244:8 276:2,7 277:8 we've 43:23 78:8,9 92:20,22 167:16 196:3 205:21,22 206:12 211:14 212:4 214:18 227:13 249:18 wee 26:5 wells 17:13,16 20:8,16,21 21:4 31:17 32:1 47:9 50:5 53:14 67:19 67:20 89:20 94:6 94:8,15 121:19 123:8 126:1,20 127:6 139:22 148:2 150:16 175:5 176:19 196:3 287:14 305:17 309:4,9 went 113:10,15 142:9 159:24 218:1 289:21 westin 9:15 11:20 whispering 5:10 wide 251:5,17 widely 156:2 220:19 221:5 wife 281:1 willing 9:14 204:12 240:14 281:11 282:21 283:4 285:9 291:21,21 wilson 2:12 3:6 6:13,13 7:23 8:2 11:14,21 12:2,5 24:9 25:13,23	26:12 40:6,15 45:8 53:6 57:23 58:7 71:23 72:6 72:13 81:4,10 89:8,10 92:12 93:2 98:13 99:19 100:1 102:9 118:19 119:1 136:7 138:11,19 145:13,15 151:24 152:6 160:9,19 161:6,13,23 162:8 162:13 165:3,6 180:20 181:15 182:10 189:12 193:11,14 201:8 201:17 222:17 225:16,23 231:9 231:12 248:9,12 262:7 297:13,22 298:12,17 301:2 315:10,20 316:1 wish 162:1,16,20 withdraw 145:18 152:24 withdrawn 63:22 89:9 witness 3:3 6:24 7:2 24:11 113:19 113:23 118:13 217:6 218:16 317:7 witnesses 7:12,17 41:15 wondering 15:15 51:19 91:17 97:6 179:15 240:16 247:2 wool 2:3 6:21 word 120:24
---	--	--	--

[words - zone]

Page 53

words 109:5 131:11 157:22 166:19 173:2 185:17 267:22 295:16 311:8	202:2 212:20 239:19 267:18 282:4 289:21 293:4 297:5 298:19
work 24:20 76:16 77:16 80:13 81:22 85:24 88:18 116:4 126:3 127:1 137:7 137:10 138:6 171:19,20 199:12 213:13 231:7 270:7 303:19	year 12:9 18:7 21:20 28:13 31:18 40:19 80:11 82:3 82:5,16 84:3,7 89:21,21 90:2,2 93:13 95:5 101:7 102:12,19 103:3,6 109:23 119:21
worked 115:20 211:20	years 93:17 95:5 100:12,17 103:1 193:10 267:18
working 252:5	yield 123:22
works 129:4	york 2:16,16
world 30:24 261:4	
worried 271:21	z
worth 97:4 207:24 219:4,6 222:14 226:10 228:11 253:21 291:10 301:22	zabel 241:16 zillow 198:21 232:1,10 239:16 240:12,17,19,23 241:4,8,18,22 242:4,6 243:2 249:4,23 250:2,14 251:8 252:10,13 252:19 253:1,2,5 253:23 254:3,5,13 254:23 255:13 275:4
write 114:5	zone 187:2,7 188:4 284:21,21 285:6 286:14 287:13 309:2 312:4
wrong 66:2 211:10 280:13 310:2	
wrote 39:23 58:24 59:1 121:15	
x	
x 1:3,11 3:1,9 235:15,18	
y	
yale 211:19 yeah 29:15 40:4 91:2 104:12 105:13,23 106:22 112:14 123:22 125:1 169:15 177:20 181:20	

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF SEPTEMBER 1, 2016. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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